If you plan to submit a bid directly to the Department of Transportation

PREQUALIFICATION

Any contractor who desires to become pre-qualified to bid on work advertised by IDOT must submit the properly completed pre-qualification forms to the Bureau of Construction no later that 4:30 p.m. prevailing time twenty-one days prior to the letting of interest. This pre-qualification requirement applies to first time contractors, contractors renewing expired ratings, contractors maintaining continuous pre-qualification or contractors requesting revised ratings. To be eligible to bid, existing pre-qualification ratings must be effective through the date of letting.

REQUESTS FOR AUTHORIZATION TO BID

Contractors wanting to bid on items included in a particular letting must submit the properly completed "Request for Authorization to Bid/or Not For Bid Status" (BDE 124INT) and the ORIGINAL "Affidavit of Availability" (BC 57) to the proper office no later than 4:30 p.m. prevailing time, three (3) days prior to the letting date.

WHO CAN BID ?

Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction.

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid Status"(BDE 124INT) he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial.

ABOUT AUTHORIZATION TO BID: Firms that have not received an authorization form within a reasonable time of complete and correct original document submittal should contact the department as to status. This is critical in the week before the letting. These documents must be received three days before the letting date. Firms unsure as to authorization status should call the Prequalification Section of the Bureau of Construction at the number listed at the end of these instructions.

ADDENDA AND REVISIONS: It is the contractor's responsibility to determine which, if any, addenda or revisions pertain to any project they may be bidding. Failure to incorporate all relevant addenda or revisions may cause the bid to be declared unacceptable.

Each addendum will be placed with the contract number. Addenda and revisions will also be placed on the Addendum/Revision Checklist and each subscription service subscriber will be notified by e-mail of each addendum and revision issued.

The Internet is the Department's primary way of doing business. The subscription server e-mails are an added courtesy the Department provides. It is suggested that bidders check IDOT's website at http://www.dot.il.gov/desenv/delett.html before submitting final bid information.

IDOT IS NOT RESPONSIBLE FOR ANY E-MAIL FAILURES.

Addenda Questions may be directed to the Contracts Office at (217)782-7806 or D&Econtracts@dot.il.gov

Technical Questions about downloading these files may be directed to Tim Garman (217)524-1642 or Timothy.Garman@illinois.gov.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond
2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	**Call**
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806
Mailing of plans and proposals	217/782-7806

ADDENDUMS AND REVISIONS TO THE PROPOSAL FORMS

Planholders should verify that they have received and incorporated any addendum and/or revision prior to submitting their bid. Failure by the bidder to include and addendum or revision could result in a bid being rejected as irregular.

RETURN WITH BID

Proposal Submitted By
Name
Address
City

328

Letting April 23, 2010

BIDDERS NEED NOT RETURN THE ENTIRE PROPOSAL
(See instructions inside front cover)

NOTICE TO PROSPECTIVE BIDDERS
This proposal can be used for bidding purposes by only those companies that request and receive written AUTHORIZATION TO BID from IDOT's Central Bureau of Construction.
(SEE INSTRUCTIONS ON THE INSIDE OF COVER)

Notice To Bidders, Specifications, Proposal, Contract and Contract Bond

Illinois Department of Transportation

Springfield, Illinois 62764

Contract No. 63353
COOK County
Section 08-00079-03-FP (Lagrange)
Route FAU 1004 (Bluff Avenue)
Project M-9003(514)
District 1 Construction Funds

PLEASE MARK THE APPROPRIATE BOX BELOW:

☐ A Bid Bond is included.

☐ A Cashier's Check or a Certified Check is included

Prepared by

F

Checked by

(Printed by authority of the State of Illinois)

INSTRUCTIONS

ABOUT IDOT PROPOSALS: All proposals issued by IDOT are potential bidding proposals. Each proposal contains all Certifications and Affidavits, a Proposal Signature Sheet and a Proposal Bid Bond required for Prime Contractors to submit a bid after written **Authorization to Bid** has been issued by IDOT's Central Bureau of Construction.

WHO CAN BID?: Bids will be accepted from only those companies that request and receive written **Authorization to Bid** from IDOT's Central Bureau of Construction. To request authorization, a potential bidder must complete and submit Part B of the Request for Authorization to Bid/or Not For Bid Status form (BDE 124 INT) and submit an original Affidavit of Availability (BC 57).

WHAT CONSTITUTES WRITTEN AUTHORIZATION TO BID?: When a prospective prime bidder submits a "Request for Authorization to Bid/or Not For Bid" form, he/she must indicate at that time which items are being requested For Bidding purposes. Only those items requested For Bidding will be analyzed. After the request has been analyzed, the bidder will be issued an **Authorization to Bid or Not for Bid Report**, approved by the Central Bureau of Construction that indicates which items have been approved For Bidding. If **Authorization to Bid** cannot be approved, the **Authorization to Bid or Not for Bid Report** will indicate the reason for denial. If a contractor has requested to bid but has not received a **Authorization to Bid or Not for Bid Report**, they should contact the Central Bureau of Construction in advance of the letting date.

WHAT MUST BE INCLUDED WHEN BIDS ARE SUBMITTED?: Bidders need not return the entire proposal when bids are submitted. That portion of the proposal that must be returned includes the following:

1. All documents from the Proposal Cover Sheet through the Proposal Bid Bond

2. Other special documentation and/or information that may be required by the contract special provisions

All proposal documents, including Proposal Guaranty Checks or Proposal Bid Bonds, should be stapled together to prevent loss when bids are processed by IDOT personnel.

ABOUT SUBMITTING BIDS: It is recommended that bidders deliver bids in person to insure they arrive at the proper location prior to the time specified for the receipt of bids. Any bid received at the place of letting after the time specified will not be accepted.

WHO SHOULD BE CALLED IF ASSISTANCE IS NEEDED?

Questions Regarding	Call
Prequalification and/or Authorization to Bid	217/782-3413
Preparation and submittal of bids	217/782-7806

RETURN WITH BID

Illinois Department of Transportation

PROPOSAL

TO THE DEPARTMENT OF TRANSPORTATION

1. Proposal of _____

   _____

Taxpayer Identification Number (Mandatory) _____

for the improvement identified and advertised for bids in the Invitation for Bids as:

Contract No. 63353
COOK County
Section 08-00079-03-FP (Lagrange)
Project M-9003(514)
Route FAU 1004 (Bluff Avenue)
District 1 Construction Funds

Reconstruction of roadway pavement, installation of storm sewer, relocation and replacement of water main, installation of sanitary sewer and all other incidental items to complete the work on FAU Route 1004 (Bluff Avenue) from 47th Street to Cossitt Avenue in the village of LaGrange.

2. The undersigned bidder will furnish all labor, material and equipment to complete the above described project in a good and workmanlike manner as provided in the contract documents provided by the Department of Transportation. This proposal will become part of the contract and the terms and conditions contained in the contract documents shall govern performance and payments.

3. **ASSURANCE OF EXAMINATION AND INSPECTION/WAIVER.** The undersigned further declares that he/she has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions, and that he/she has inspected in detail the site of the proposed work, and that he/she has familiarized themselves with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he/she waives all right to plead any misunderstanding regarding the same.

4. **EXECUTION OF CONTRACT AND CONTRACT BOND.** The undersigned further agrees to execute a contract for this work and present the same to the department within fifteen (15) days after the contract has been mailed to him/her. The undersigned further agrees that he/she and his/her surety will execute and present within fifteen (15) days after the contract has been mailed to him/her contract bond satisfactory to and in the form prescribed by the Department of Transportation, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

5. **PROPOSAL GUARANTY.** Accompanying this proposal is either a bid bond on the department form, executed by a corporate surety company satisfactory to the department, or a proposal guaranty check consisting of a bank cashier's check or a properly certified check for not less than 5 per cent of the amount bid or for the amount specified in the following schedule:

Amount of Bid			Proposal Guaranty	Amount of Bid			Proposal Guaranty
Up to		$5,000	$150	$2,000,000	to	$3,000,000	$100,000
$5,000	to	$10,000	$300	$3,000,000	to	$5,000,000	$150,000
$10,000	to	$50,000	$1,000	$5,000,000	to	$7,500,000	$250,000
$50,000	to	$100,000	$3,000	$7,500,000	to	$10,000,000	$400,000
$100,000	to	$150,000	$5,000	$10,000,000	to	$15,000,000	$500,000
$150,000	to	$250,000	$7,500	$15,000,000	to	$20,000,000	$600,000
$250,000	to	$500,000	$12,500	$20,000,000	to	$25,000,000	$700,000
$500,000	to	$1,000,000	$25,000	$25,000,000	to	$30,000,000	$800,000
$1,000,000	to	$1,500,000	$50,000	$30,000,000	to	$35,000,000	$900,000
$1,500,000	to	$2,000,000	$75,000	over		$35,000,000	$1,000,000

Bank cashier's checks or properly certified checks accompanying proposals shall be made payable to the Treasurer, State of Illinois, when the state is awarding authority; the county treasurer, when a county is the awarding authority; or the city, village, or town treasurer, when a city, village, or town is the awarding authority.

If a combination bid is submitted, the proposal guaranties which accompany the individual proposals making up the combination will be considered as also covering the combination bid.

The amount of the proposal guaranty check is _____ $( ). If this proposal is accepted and the undersigned shall fail to execute a contract bond as required herein, it is hereby agreed that the amount of the proposal guaranty shall become the property of the State of Illinois, and shall be considered as payment of damages due to delay and other causes suffered by the State because of the failure to execute said contract and contract bond; otherwise, the bid bond shall become void or the proposal guaranty check shall be returned to the undersigned.

Attach Cashier's Check or Certified Check Here

In the event that one proposal guaranty check is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guaranties which would be required for each individual proposal. If the guaranty check is placed in another proposal, state below where it may be found.

The proposal guaranty check will be found in the proposal for: Item _____

Section No. _____

County _____

Mark the proposal cover sheet as to the type of proposal guaranty submitted.

6. **COMBINATION BIDS.** The undersigned further agrees that if awarded the contract for the sections contained in the following combination, he/she will perform the work in accordance with the requirements of each individual proposal comprising the combination bid specified in the schedule below, and that the combination bid shall be prorated against each section in proportion to the bid submitted for the same. If an error is found to exist in the gross sum bid for one or more of the individual sections included in a combination, the combination bid shall be corrected as provided in the specifications.

When a combination bid is submitted, the schedule below must be completed in each proposal comprising the combination.

If alternate bids are submitted for one or more of the sections comprising the combination, a combination bid must be submitted for each alternate.

Schedule of Combination Bids

Combination No.	Sections Included in Combination	Combination Bid Dollars	Cents

7. **SCHEDULE OF PRICES.** The undersigned bidder submits herewith, in accordance with the rules and instructions, a schedule of prices for the items of work for which bids are sought. The unit prices bid are in U.S. dollars and cents, and all extensions and summations have been made. The bidder understands that the quantities appearing in the bid schedule are approximate and are provided for the purpose of obtaining a gross sum for the comparison of bids. If there is an error in the extension of the unit prices, the unit prices shall govern. Payment to the contractor awarded the contract will be made only for actual quantities of work performed and accepted or materials furnished according to the contract. The scheduled quantities of work to be done and materials to be furnished may be increased, decreased or omitted as provided elsewhere in the contract.

8. **CERTIFICATE OF AUTHORITY.** The undersigned bidder, if a business organized under the laws of another State, assures the Department that it will furnish a copy of its certificate of authority to do business in the State of Illinois with the return of the executed contract and bond. Failure to furnish the certificate within the time provided for execution of an awarded contract may be cause for cancellation of the award and forfeiture of the proposal guaranty to the State.

STATE JOB #- C-91-140-10
PPS NBR - 1-20767-0000

SCHEDULE OF PRICES
CONTRACT NUMBER - 63353

RUN DATE - 03/17/10
RUN TIME - 204518

COUNTY NAME	CODE	DIST	SECTION NUMBER	PROJECT NUMBER	ROUTE
COOK	031	01	08-00079-03-FP (LAGRANGE)	M-9003/514/000	FAU 1004

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
A2000320	T-ACER MIY MOR 2-1/2	EACH	10.000	X			=		
A2002920	T-CELTIS OCCID 2-1/2	EACH	6.000	X			=		
A2006616	T-QUERCUS IMBR 2	EACH	5.000	X			=		
A2006716	T-QUERCUS MACR 2	EACH	6.000	X			=		
A2008518	T-ULMUS MRTN G TRELM2	EACH	9.000	X			=		
B2004520	T-MALUS R J TF 2-1/2	EACH	11.000	X			=		
B2006120	T-SYRG PEK M TF 2-1/2	EACH	9.000	X			=		
B2006220	T-SYRING RET TF 2-1/2	EACH	12.000	X			=		
XX000717	STORM SEWER CONN SPL	EACH	1.000	X			=		
XX001047	VALVE VAULTS ABANDON	EACH	7.000	X			=		
XX003037	D I FITTINGS & ACCESS	POUND	39,567.000	X			=		
XX003531	WAT SER CONN 1	EACH	17.000	X			=		
XX003803	SAN SEWER SERVICE 6	FOOT	844.000	X			=		
XX004382	PRES TEST & DISINFECT	EACH	2.000	X			=		
XX006217	SAN SEWER SERVICE 8	FOOT	58.000	X			=		

ILLINOIS DEPARTMENT OF TRANSPORTATION
SCHEDULE OF PRICES
CONTRACT NUMBER - 63353

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
XX006698	TREE PROTECT & PRESER	EACH	43.000	X			=		
XX007535	GULFBOX ADJUSTED	EACH	10.000	X			=		
XX007760	MULCH PLACEMENT SPEC	EACH	68.000	X			=		
XX007762	SHUT DOWN CONNECTION	EACH	9.000	X			=		
X0322916	PRO SS CONN TO EX SS	EACH	2.000	X			=		
X0323168	DROP CONNECTION	EACH	1.000	X			=		
X0323517	WATER MAIN CAS 24	FOOT	20.000	X			=		
X0323868	DRAINAGE RESTRICTOR	EACH	1.000	X			=		
X0326713	SANITARY SEWER CONN	EACH	2.000	X			=		
Z0050500	REM & RES EX ST LIGHT	EACH	10.000	X			=		
Z0076600	TRAINEES	HOUR	1,000.000	X	0	.80	=	800	.00
20100110	TREE REMOV 6-15	UNIT	127.000	X			=		
20100210	TREE REMOV OVER 15	UNIT	184.000	X			=		
20101400	NITROGEN FERT NUTR	POUND	81.000	X			=		
20101500	PHOSPHORUS FERT NUTR	POUND	81.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
20101600	POTASSIUM FERT NUTR	POUND	81.000	X			=		
20101700	SUPPLE WATERING	UNIT	100.000	X			=		
20200100	EARTH EXCAVATION	CU YD	6,192.000	X			=		
20200200	ROCK EXCAVATION	CU YD	178.000	X			=		
20201200	REM & DISP UNS MATL	CU YD	2,386.000	X			=		
20700420	POROUS GRAN EMB SUBGR	CU YD	2,386.000	X			=		
20800150	TRENCH BACKFILL	CU YD	3,973.000	X			=		
21001000	GEOTECH FAB F/GR STAB	SQ YD	12,410.000	X			=		
21101615	TOPSOIL F & P 4	SQ YD	6,516.000	X			=		
25200650	SODDING SALT TOLER SP	SQ YD	6,516.000	X			=		
28000400	PERIMETER EROS BAR	FOOT	658.000	X			=		
28000510	INLET FILTERS	EACH	55.000	X			=		
31101100	SUB GRAN MAT B	CU YD	194.000	X			=		
31101400	SUB GRAN MAT B 6	SQ YD	12,511.000	X			=		
40201000	AGGREGATE-TEMP ACCESS	TON	3,000.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
40600100	BIT MATLS PR CT	GALLON	4,856.000	X			=		
40600300	AGG PR CT	TON	27.000	X			=		
40600895	CONSTRUC TEST STRIP	EACH	1.000	X			=		
40600982	HMA SURF REM BUTT JT	SQ YD	314.000	X			=		
40603310	HMA SC "C" N50	TON	35.000	X			=		
40701921	HMA PAVT FD 12	SQ YD	10,791.000	X			=		
42001300	PROTECTIVE COAT	SQ YD	4,260.000	X			=		
42300300	PCC DRIVEWAY PAVT 7	SQ YD	1,143.000	X			=		
42400200	PC CONC SIDEWALK 5	SQ FT	13,978.000	X			=		
42400400	PC CONC SIDEWALK 7	SQ FT	1,320.000	X			=		
42400800	DETECTABLE WARNINGS	SQ FT	130.000	X			=		
44000100	PAVEMENT REM	SQ YD	10,543.000	X			=		
44000200	DRIVE PAVEMENT REM	SQ YD	1,469.000	X			=		
44000500	COMB CURB GUTTER REM	FOOT	5,962.000	X			=		
44000600	SIDEWALK REM	SQ FT	8,889.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
44201080	CL B PATCH T4	SQ YD	30.000	X			=		
44201313	CL C PATCH T1 7	SQ YD	6.000	X			=		
44201317	CL C PATCH T2 7	SQ YD	6.000	X			=		
44201701	CL D PATCH T1 5	SQ YD	41.000	X			=		
44201980	CL D PATCH T4	SQ YD	29.000	X			=		
550A0800	STORM SEW CL A 3 60	FOOT	108.000	X			=		
550B0320	STORM SEW CL B 2 8	FOOT	320.000	X			=		
550B0330	STORM SEW CL B 2 10	FOOT	2,453.000	X			=		
550B0340	STORM SEW CL B 2 12	FOOT	219.000	X			=		
550B0360	STORM SEW CL B 2 15	FOOT	470.000	X			=		
550B0380	STORM SEW CL B 2 18	FOOT	1,018.000	X			=		
550B0410	STORM SEW CL B 2 24	FOOT	1,018.000	X			=		
56102900	D I WATER MAIN 4	FOOT	24.000	X			=		
56103000	D I WATER MAIN 6	FOOT	222.000	X			=		
56103100	D I WATER MAIN 8	FOOT	188.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
56103300	D I WATER MAIN 12	FOOT	3,171.000	X			=		
56104800	WATER VALVES 4	EACH	1.000	X			=		
56104900	WATER VALVES 6	EACH	4.000	X			=		
56105000	WATER VALVES 8	EACH	3.000	X			=		
56105200	WATER VALVES 12	EACH	11.000	X			=		
56200300	WATER SERV LINE 1	FOOT	528.000	X			=		
56200700	WATER SERV LINE 2	FOOT	344.000	X			=		
56400500	FIRE HYDNTS TO BE REM	EACH	5.000	X			=		
56400820	FIRE HYD W/AUX V & VB	EACH	9.000	X			=		
60202905	CB TA SPEC 4D T1F CL	EACH	1.000	X			=		
60203240	CB TA SPEC 4D T23F&G	EACH	25.000	X			=		
60218400	MAN TA 4 DIA T1F CL	EACH	21.000	X			=		
60221100	MAN TA 5 DIA T1F CL	EACH	4.000	X			=		
60233500	PR T MH 60D SS T1FCL	EACH	1.000	X			=		
60237460	INLETS TA T23F&G	EACH	1.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
60248700	VV TA 4 DIA T1F CL	EACH	4.000	X			=		
60248900	VV TA 5 DIA T1F CL	EACH	11.000	X			=		
60249300	VALVE BOXES 4	EACH	1.000	X			=		
60249400	VALVE BOXES 6	EACH	3.000	X			=		
60266500	VV REMOVED	EACH	4.000	X			=		
60266910	VALVE BOX REMOVED	EACH	8.000	X			=		
60500040	REMOV MANHOLES	EACH	13.000	X			=		
60500050	REMOV CATCH BAS	EACH	18.000	X			=		
60500060	REMOV INLETS	EACH	15.000	X			=		
60603800	COMB CC&G TB6.12	FOOT	372.000	X			=		
60604400	COMB CC&G TB6.18	FOOT	5,895.000	X			=		
66700095	PERM SURV MKRS	EACH	3.000	X			=		
67100100	MOBILIZATION	L SUM	1.000	X			=		
70101900	TRAF CONT & PROT D1	L SUM	1.000	X			=		
70102620	TR CONT & PROT 701501	L SUM	1.000	X			=		

ITEM NUMBER	PAY ITEM DESCRIPTION	UNIT OF MEASURE	QUANTITY		UNIT PRICE DOLLARS	UNIT PRICE CENTS		TOTAL PRICE DOLLARS	TOTAL PRICE CTS
70102625	TR CONT & PROT 701606	L SUM	1.000	X			=		
70102640	TR CONT & PROT 701801	L SUM	1.000	X			=		
72000100	SIGN PANEL T1	SQ FT	163.000	X			=		
72800100	TELES STL SIN SUPPORT	FOOT	334.000	X			=		
78000100	THPL PVT MK LTR & SYM	SQ FT	16.000	X			=		
78000200	THPL PVT MK LINE 4	FOOT	1,921.000	X			=		
78000400	THPL PVT MK LINE 6	FOOT	2,445.000	X			=		
78000600	THPL PVT MK LINE 12	FOOT	262.000	X			=		
78000650	THPL PVT MK LINE 24	FOOT	203.000	X			=		
78100100	RAISED REFL PAVT MKR	EACH	62.000	X			=		

TOTAL $

NOTE:

1. EACH PAY ITEM SHOULD HAVE A UNIT PRICE AND A TOTAL PRICE.
2. THE UNIT PRICE SHALL GOVERN IF NO TOTAL PRICE IS SHOWN OR IF THERE IS A DISCREPANCY BETWEEN THE PRODUCT OF THE UNIT PRICE MULTIPLIED BY THE QUANTITY.
3. IF A UNIT PRICE IS OMITTED, THE TOTAL PRICE WILL BE DIVIDED BY THE QUANTITY IN ORDER TO ESTABLISH A UNIT PRICE.
4. A BID MAY BE DECLARED UNACCEPTABLE IF NEITHER A UNIT PRICE NOR A TOTAL PRICE IS SHOWN.

RETURN WITH BID

STATE REQUIRED ETHICAL STANDARDS GOVERNING CONTRACT PROCUREMENT: ASSURANCES, CERTIFICATIONS AND DISCLOSURES

I. GENERAL

A. Article 50 of the Illinois Procurement Code establishes the duty of all State chief procurement officers, State purchasing officers, and their designees to maximize the value of the expenditure of public moneys in procuring goods, services, and contracts for the State of Illinois and to act in a manner that maintains the integrity and public trust of State government. In discharging this duty, they are charged by law to use all available information, reasonable efforts, and reasonable actions to protect, safeguard, and maintain the procurement process of the State of Illinois.

B. In order to comply with the provisions of Article 50 and to carry out the duty established therein, all bidders are to adhere to ethical standards established for the procurement process, and to make such assurances, disclosures and certifications required by law. By execution of the Proposal Signature Sheet, the bidder indicates that each of the mandated assurances has been read and understood, that each certification is made and understood, and that each disclosure requirement has been understood and completed.

C. In addition to all other remedies provided by law, failure to comply with any assurance, failure to make any disclosure or the making of a false certification shall be grounds for termination of the contract and the suspension or debarment of the bidder.

II. ASSURANCES

A. The assurances hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous assurance, and the surety providing the performance bond shall be responsible for the completion of the contract.

B. Felons

1. The Illinois Procurement Code provides:

Section 50-10. Felons. Unless otherwise provided, no person or business convicted of a felony shall do business with the State of Illinois or any state agency from the date of conviction until 5 years after the date of completion of the sentence for that felony, unless no person held responsible by a prosecutorial office for the facts upon which the conviction was based continues to have any involvement with the business.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-10.

C. Conflicts of Interest

1. The Illinois Procurement Code provides in pertinent part:

Section 50-13. Conflicts of Interest.

(a) Prohibition. It is unlawful for any person holding an elective office in this State, holding a seat in the General Assembly, or appointed to or employed in any of the offices or agencies of state government and who receives compensation for such employment in excess of 60% of the salary of the Governor of the State of Illinois, or who is an officer or employee of the Capital Development Board or the Illinois Toll Highway Authority, or who is the spouse or minor child of any such person to have or acquire any contract, or any direct pecuniary interest in any contract therein, whether for stationery, printing, paper, or any services, materials, or supplies, that will be wholly or partially satisfied by the payment of funds appropriated by the General Assembly of the State of Illinois or in any contract of the Capital Development Board or the Illinois Toll Highway authority.

(b) Interests. It is unlawful for any firm, partnership, association or corporation, in which any person listed in subsection (a) is entitled to receive (i) more than 7 1/2% of the total distributable income or (ii) an amount in excess of the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(c) Combined interests. It is unlawful for any firm, partnership, association, or corporation, in which any person listed in subsection (a) together with his or her spouse or minor children is entitled to receive (i) more than 15%, in the aggregate, of the total distributable income or (ii) an amount in excess of 2 times the salary of the Governor, to have or acquire any such contract or direct pecuniary interest therein.

(d) Securities. Nothing in this Section invalidates the provisions of any bond or other security previously offered or to be offered for sale or sold by or for the State of Illinois.

(e) Prior interests. This Section does not affect the validity of any contract made between the State and an officer or employee of the State or member of the General Assembly, his or her spouse, minor child or any combination of those persons if that contract was in existence before his or her election or employment as an officer, member, or employee. The contract is voidable, however, if it cannot be completed within 365 days after the officer, member, or employee takes office or is employed.

The current salary of the Governor is $177,412.00. Sixty percent of the salary is $106,447.20.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-13, or that an effective exemption has been issued by the Board of Ethics to any individual subject to the Section 50-13 prohibitions pursuant to the provisions of Section 50-20 of the Code and Executive Order Number 3 (1998). Information concerning the exemption process is available from the Department upon request.

D. Negotiations

1. The Illinois Procurement Code provides in pertinent part:

Section 50-15. Negotiations.

(a) It is unlawful for any person employed in or on a continual contractual relationship with any of the offices or agencies of State government to participate in contract negotiations on behalf of that office or agency with any firm, partnership, association, or corporation with whom that person has a contract for future employment or is negotiating concerning possible future employment.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-15, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

E. Inducements

1. The Illinois Procurement Code provides:

Section 50-25. Inducement. Any person who offers or pays any money or other valuable thing to any person to induce him or her not to bid for a State contract or as recompense for not having bid on a State contract is guilty of a Class 4 felony. Any person who accepts any money or other valuable thing for not bidding for a State contract or who withholds a bid in consideration of the promise for the payment of money or other valuable thing is guilty of a Class 4 felony.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-25, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

F. Revolving Door Prohibition

1. The Illinois Procurement Code provides:

Section 50-30. Revolving door prohibition. Chief procurement officers, associate procurement officers, State purchasing officers, their designees whose principal duties are directly related to State procurement, and executive officers confirmed by the Senate are expressly prohibited for a period of 2 years after terminating an affected position from engaging in any procurement activity relating to the State agency most recently employing them in an affected position for a period of at least 6 months. The prohibition includes, but is not limited to: lobbying the procurement process; specifying; bidding; proposing bid, proposal, or contract documents; on their own behalf or on behalf of any firm, partnership, association, or corporation. This Section applies only to persons who terminate an affected position on or after January 15, 1999.

2. The bidder assures the Department that the award and execution of the contract would not cause a violation of Section 50-30, and that the bidder has no knowledge of any facts relevant to the kinds of acts prohibited therein.

G. Reporting Anticompetitive Practices

1. The Illinois Procurement Code provides:

Section 50-40. Reporting anticompetitive practices. When, for any reason, any vendor, bidder, contractor, chief procurement officer, State purchasing officer, designee, elected official, or State employee suspects collusion or other anticompetitive practice among any bidders, offerors, contractors, proposers, or employees of the State, a notice of the relevant facts shall be transmitted to the Attorney General and the chief procurement officer.

2. The bidder assures the Department that it has not failed to report any relevant facts concerning the practices addressed in Section 50-40 which may involve the contract for which the bid is submitted.

H. Confidentiality

1. The Illinois Procurement Code provides:

Section 50-45. Confidentiality. Any chief procurement officer, State purchasing officer, designee, or executive officer who willfully uses or allows the use of specifications, competitive bid documents, proprietary competitive information, proposals, contracts, or selection information to compromise the fairness or integrity of the procurement, bidding, or contract process shall be subject to immediate dismissal, regardless of the Personnel code, any contract, or any collective bargaining agreement, and may in addition be subject to criminal prosecution.

2. The bidder assures the Department that it has no knowledge of any fact relevant to the practices addressed in Section 50-45 which may involve the contract for which the bid is submitted.

I. Insider Information

1. The Illinois Procurement Act provides:

Section 50-50. Insider information. It is unlawful for any current or former elected or appointed State official or State employee to knowingly use confidential information available only by virtue of that office or employment for actual or anticipated gain for themselves or another person.

2. The bidder assures the Department that it has no knowledge of any facts relevant to the practices addressed in Section 50-50 which may involve the contract for which the bid is submitted.

III. CERTIFICATIONS

A. The certifications hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous certification, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Bribery

1. The Illinois Procurement Code provides:

Section 50-5. Bribery.

(a) Prohibition. No person or business shall be awarded a contract or subcontract under this Code who:

(1) has been convicted under the laws of Illinois or any other state of bribery or attempting to bribe an officer or employee of the State of Illinois or any other state in that officer's or employee's official capacity; or

(2) has made an admission of guilt of that conduct that is a matter of record but has not been prosecuted for that conduct.

(b) Businesses. No business shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of the business if the employee or agent is no longer employed by the business and:

(1) the business has been finally adjudicated not guilty; or

(2) the business demonstrates to the governmental entity with which it seeks to contract, and that entity finds that the commission of the offense was not authorized, requested, commanded, or performed by a director, officer, or high managerial agent on behalf of the business as provided in paragraph (2) of subsection (a) of Section 5-4 of the Criminal Code of 1961.

(c) Conduct on behalf of business. For purposes of this Section, when an official, agent, or employee of a business committed the bribery or attempted bribery on behalf of the business and in accordance with the direction or authorization of a responsible official of the business, the business shall be chargeable with the conduct.

(d) Certification. Every bid submitted to and contract executed by the State shall contain a certification by the contractor that the contractor is not barred from being awarded a contract or subcontract under this Section. A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

2. The bidder certifies that it is not barred from being awarded a contract under Section 50.5.

C. Educational Loan

1. Section 3 of the Educational Loan Default Act provides:

§ 3. No State agency shall contract with an individual for goods or services if that individual is in default, as defined in Section 2 of this Act, on an educational loan. Any contract used by any State agency shall include a statement certifying that the individual is not in default on an educational loan as provided in this Section.

2. The bidder, if an individual as opposed to a corporation, partnership or other form of business organization, certifies that the bidder is not in default on an educational loan as provided in Section 3 of the Act.

D. Bid-Rigging/Bid Rotating

1. Section 33E-11 of the Criminal Code of 1961 provides:

§ 33E-11. (a) Every bid submitted to and public contract executed pursuant to such bid by the State or a unit of local government shall contain a certification by the prime contractor that the prime contractor is not barred from contracting with any unit of State or local government as a result of a violation of either Section 33E-3 or 33E-4 of this Article. The State and units of local government shall provide the appropriate forms for such certification.

(b) A contractor who makes a false statement, material to the certification, commits a Class 3 felony.

A violation of Section 33E-3 would be represented by a conviction of the crime of bid-rigging which, in addition to Class 3 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be barred for 5 years from the date of conviction from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

A violation of Section 33E-4 would be represented by a conviction of the crime of bid-rotating which, in addition to Class 2 felony sentencing, provides that any person convicted of this offense or any similar offense of any state or the United States which contains the same elements as this offense shall be permanently barred from contracting with any unit of State or local government. No corporation shall be barred from contracting with any unit of State or local government as a result of a conviction under this Section of any employee or agent of such corporation if the employee so convicted is no longer employed by the corporation and: (1) it has been finally adjudicated not guilty or (2) if it demonstrates to the governmental entity with which it seeks to contract and that entity finds that the commission of the offense was neither authorized, requested, commanded, nor performed by a director, officer or a high managerial agent in behalf of the corporation.

2. The bidder certifies that it is not barred from contracting with the Department by reason of a violation of either Section 33E-3 or Section 33E-4.

E. International Anti-Boycott

1. Section 5 of the International Anti-Boycott Certification Act provides:

§ 5. State contracts. Every contract entered into by the State of Illinois for the manufacture, furnishing, or purchasing of supplies, material, or equipment or for the furnishing of work, labor, or services, in an amount exceeding the threshold for small purchases according to the purchasing laws of this State or $10,000.00, whichever is less, shall contain certification, as a material condition of the contract, by which the contractor agrees that neither the contractor nor any substantially-owned affiliated company is participating or shall participate in an international boycott in violation of the provisions of the U.S. Export Administration Act of 1979 or the regulations of the U.S. Department of Commerce promulgated under that Act.

2. The bidder makes the certification set forth in Section 5 of the Act.

F. Drug Free Workplace

1. The Illinois “Drug Free Workplace Act” applies to this contract and it is necessary to comply with the provisions of the “Act” if the contractor is a corporation, partnership, or other entity (including a sole proprietorship) which has 25 or more employees.

2. The bidder certifies that if awarded a contract in excess of $5,000 it will provide a drug free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance, including cannabis, is prohibited in the contractor’s workplace; specifying the actions that will be taken against employees for violations of such prohibition; and notifying the employee that, as a condition of employment on such contract, the employee shall abide by the terms of the statement, and notify the employer of any criminal drug statute conviction for a violation occurring in the workplace no later than five (5) days after such conviction.

(b) Establishing a drug free awareness program to inform employees about the dangers of drug abuse in the workplace; the contractor’s policy of maintaining a drug free workplace; any available drug counseling, rehabilitation, and employee assistance programs; and the penalties that may be imposed upon employees for drug violations.

(c) Providing a copy of the statement required by subparagraph (1) to each employee engaged in the performance of the contract and to post the statement in a prominent place in the workplace.

(d) Notifying the Department within ten (10) days after receiving notice from an employee or otherwise receiving actual notice of the conviction of an employee for a violation of any criminal drug statute occurring in the workplace.

(e) Imposing or requiring, within 30 days after receiving notice from an employee of a conviction or actual notice of such a conviction, an appropriate personnel action, up to and including termination, or the satisfactory participation in a drug abuse assistance or rehabilitation program approved by a federal, state or local health, law enforcement or other appropriate agency.

(f) Assisting employees in selecting a course of action in the event drug counseling, treatment, and rehabilitation is required and indicating that a trained referral team is in place.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of the actions and efforts stated in this certification.

G. Debt Delinquency

1. The Illinois Procurement Code provides:

Section 50-11 and 50-12. Debt Delinquency.

The contractor or bidder certifies that it, or any affiliate, is not barred from being awarded a contract under 30 ILCS 500. Section 50-11 prohibits a person from entering into a contract with a State agency if it knows or should know that it, or any affiliate, is delinquent in the payment of any debt to the State as defined by the Debt Collection Board. Section 50-12 prohibits a person from entering into a contract with a State agency if it, or any affiliate, has failed to collect and remit Illinois Use Tax on all sales of tangible personal property into the State of Illinois in accordance with the provisions of the Illinois Use Tax Act. The contractor further acknowledges that the contracting State agency may declare the contract void if this certification is false or if the contractor, or any affiliate, is determined to be delinquent in the payment of any debt to the State during the term of the contract.

H. Sarbanes-Oxley Act of 2002

1. The Illinois Procurement Code, Section 50-60(c), provides:

The contractor certifies in accordance with 30 ILCS 500/50-10.5 that no officer, director, partner or other managerial agent of the contracting business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five years prior to the date of the bid or contract. The contractor acknowledges that the contracting agency shall declare the contract void if this certification is false.

I. Addenda

The contractor or bidder certifies that all relevant addenda have been incorporated in to this contract. Failure to do so may cause the bid to be declared unacceptable.

J. Section 42 of the Environmental Protection Act

The contractor certifies in accordance with 30 ILCS 500/50-12 that the bidder or contractor is not barred from being awarded a contract under this Section which prohibits the bidding on or entering into contracts with the State of Illinois or a State agency by a person or business found by a court or the Pollution Control Board to have committed a willful or knowing violation of Section 42 of the Environmental Protection Act for a period of five years from the date of the order. The contractor acknowledges that the contracting agency may declare the contract void if this certification is false.

K. Apprenticeship and Training Certification (Does not apply to federal aid projects)

In accordance with the provisions of Section 30-22 (6) of the Illinois Procurement Code, the bidder certifies that it is a participant, either as an individual or as part of a group program, in the approved apprenticeship and training programs applicable to each type of work or craft that the bidder will perform with its own forces. The bidder further certifies for work that will be performed by subcontract that each of its subcontractors submitted for approval either (a) is, at the time of such bid, participating in an approved, applicable apprenticeship and training program; or (b) will, prior to commencement of performance of work pursuant to this contract, begin participation in an approved apprenticeship and training program applicable to the work of the subcontract. The Department, at any time before or after award, may require the production of a copy of each applicable Certificate of Registration issued by the United States Department of Labor evidencing such participation by the contractor and any or all of its subcontractors. Applicable apprenticeship and training programs are those that have been approved and registered with the United States Department of Labor. The bidder shall list in the space below, the official name of the program sponsor holding the Certificate of Registration for all of the types of work or crafts in which the bidder is a participant and that will be performed with the bidder's forces. Types of work or craft work that will be subcontracted shall be included and listed as subcontract work. The list shall also indicate any type of work or craft job category that does not have an applicable apprenticeship or training program. **The bidder is responsible for making a complete report and shall make certain that each type of work or craft job category that will be utilized on the project as reported on the Construction Employee Workforce Projection (Form BC-1256) and returned with the bid is accounted for and listed.**

NA - FEDERAL

The requirements of this certification and disclosure are a material part of the contract, and the contractor shall require this certification provision to be included in all approved subcontracts. In order to fulfill this requirement, it shall not be necessary that an applicable program sponsor be currently taking or that it will take applications for apprenticeship, training or employment during the performance of the work of this contract.

L. Executive Order Number 1 (2007) Regarding Lobbying on Government Procurements

The bidder hereby warrants and certifies that they have complied and will comply with the requirements set forth in this Order. The requirements of this warrant and certification are a material part of the contract, and the contractor shall require this warrant and certification provision to be included in all approved subcontracts.

M. Disclosure of Business Operations in Iran

Section 50-36 of the Illinois Procurement Code, 30ILCS 500/50-36 provides that each bid, offer, or proposal submitted for a State contract shall include a disclosure of whether or not the Company acting as the bidder, offer or, or proposing entity, or any of its corporate parents or subsidiaries, within the 24 months before submission of the bid, offer, or proposal had business operations that involved contracts with or provision of supplies or services to the Government of Iran, companies in which the Government of Iran has any direct or indirect equity share, consortiums or projects commissioned by the Government of Iran, or companies involved in consortiums or projects commissioned by the Government of Iran and either of the following conditions apply:

(1) More than 10% of the Company's revenues produced in or assets located in Iran involve oil-related activities or mineral-extraction activities; less than 75% of the Company's revenues produced in or assets located in Iran involve contracts with or provision of oil-related or mineral-extraction products or services to the Government of Iran or a project or consortium created exclusively by that government; and the Company has failed to take substantial action.

(2) The Company has, on or after August 5, 1996, made an investment of $20 million or more, or any combination of investments of at least $10 million each that in the aggregate equals or exceeds $20 million in any 12-month period, which directly or significantly contributes to the enhancement of Iran's ability to develop petroleum resources of Iran.

The terms “Business operations”, “Company”, “Mineral-extraction activities”, “Oil-related activities”, “Petroleum resources”, and “Substantial action” are all defined in the Code.

Failure to make the disclosure required by the Code shall cause the bid, offer or proposal to be considered not responsive. The disclosure will be considered when evaluating the bid, offer, or proposal or awarding the contract. The name of each Company disclosed as doing business or having done business in Iran will be provided to the State Comptroller.

Check the appropriate statement:

/___/ Company has no business operations in Iran to disclose.

/___/ Company has business operations in Iran as disclosed the attached document.

N. Political Contributions and Registration with the State Board of Elections

Sections 20-160 and 50-37 of the Illinois Procurement Code regulate political contributions from business entities and any affiliated entities or affiliated persons bidding on or contracting with the state. Generally under Section 50-37, any business entity, and any affiliated entity or affiliated person of the business entity, whose current year contracts with all state agencies exceed an awarded value of $50,000, are prohibited from making any contributions to any political committees established to promote the candidacy of the officeholder responsible for the awarding of the contracts or any other declared candidate for that office for the duration of the term of office of the incumbent officeholder or a period 2 years after the termination of the contract, whichever is longer. Any business entity and affiliated entities or affiliated persons whose state contracts in the current year do not exceed an awarded value of $50,000, but whose aggregate pending bids and proposals on state contracts exceed $50,000, either alone or in combination with contracts not exceeding $50,000, are prohibited from making any political contributions to any political committee established to promote the candidacy of the officeholder responsible for awarding the pending contract during the period beginning on the date the invitation for bids or request for proposals is issued and ending on the day after the date of award or selection if the entity was not awarded or selected. Section 20-160 requires certification of registration of affected business entities in accordance with procedures found in Section 9-35 of The Election Code.

By submission of a bid, the contractor business entity acknowledges and agrees that it has read and understands Sections 20-160 and 50-37 of the Illinois Procurement Code, and that it makes the following certification:

The undersigned business entity certifies that it has registered as a business with the State Board of Elections and acknowledges a continuing duty to update the registration in accordance with the above referenced statutes. A copy of the certificate of registration shall be submitted with the bid. The bidder is cautioned that the Department will not award a contract without submission of the certificate of registration.

These requirements and compliance with the above referenced statutory sections are a material part of the contract, and any breach thereof shall be cause to void the contract under Section 50-60 of the Illinois Procurement Code. This provision does not apply to Federal-aid contracts.

TO BE RETURNED WITH BID

IV. DISCLOSURES

A. The disclosures hereinafter made by the bidder are each a material representation of fact upon which reliance is placed should the Department enter into the contract with the bidder. The Department may terminate the contract if it is later determined that the bidder rendered a false or erroneous disclosure, and the surety providing the performance bond shall be responsible for completion of the contract.

B. Financial Interests and Conflicts of Interest

1. Section 50-35 of the Illinois Procurement Code provides that all bids of more than $10,000 shall be accompanied by disclosure of the financial interests of the bidder. This disclosed information for the successful bidder, will be maintained as public information subject to release by request pursuant to the Freedom of Information Act.

The financial interests to be disclosed shall include ownership or distributive income share that is in excess of 5%, or an amount greater than 60% of the annual salary of the Governor, of the bidding entity or its parent entity, whichever is less, unless the contractor or bidder is a publicly traded entity subject to Federal 10K reporting, in which case it may submit its 10K disclosure in place of the prescribed disclosure. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. The disclosure shall include the names, addresses, and dollar or proportionate share of ownership of each person making the disclosure, their instrument of ownership or beneficial relationship, and notice of any potential conflict of interest resulting from the current ownership or beneficial interest of each person making the disclosure having any of the relationships identified in Section 50-35 and on the disclosure form.

In addition, all disclosures shall indicate any other current or pending contracts, proposals, leases, or other ongoing procurement relationships the bidding entity has with any other unit of state government and shall clearly identify the unit and the contract, proposal, lease, or other relationship.

2. Disclosure Forms. Disclosure Form A is attached for use concerning the individuals meeting the above ownership or distributive share requirements. Subject individuals should be covered each by one form. In addition, a second form (Disclosure Form B) provides for the disclosure of current or pending procurement relationships with other (non-IDOT) state agencies. **The forms must be included with each bid or incorporated by reference.**

C. Disclosure Form Instructions

Form A: For bidders that have previously submitted the information requested in Form A

The Department has retained the Form A disclosures submitted by all bidders responding to these requirements for the April 24, 1998 or any subsequent letting conducted by the Department. The bidder has the option of submitting the information again or the bidder may check the following certification statement indicating that the information previously submitted by the bidder is, as of the date of submission, current and accurate. Before checking this certification, the bidder should carefully review its prior submissions to ensure the Certification is correct. If the Bidder checks the Certification, the Bidder should proceed to Form B instructions.

CERTIFICATION STATEMENT

I have determined that the Form A disclosure information previously submitted is current and accurate, and all forms are hereby incorporated by reference in this bid. Any necessary additional forms or amendments to previously submitted forms are attached to this bid.

_____
(Bidding Company)

☐ _____ _____
Signature of Authorized Representative Date

Form A: For bidders who have NOT previously submitted the information requested in Form A

If the bidder is a publicly traded entity subject to Federal 10K reporting, the 10K Report may be submitted to meet the requirements of Form A. If a bidder is a privately held entity that is exempt from Federal 10K reporting, but has more than 400 shareholders, it may submit the information that Federal 10K companies are required to report, and list the names of any person or entity holding any ownership share that is in excess of 5%. If a bidder is not subject to Federal 10K reporting, the bidder must determine if any individuals are required by law to complete a financial disclosure form. To do this, the bidder should answer each of the following questions. A "YES" answer indicates Form A must be completed. If the answer to each of the following questions is "NO", then the NOT APPLICABLE STATEMENT on the second page of Form A must be signed and dated by a person that is authorized to execute contracts for the bidding company. Note: These questions are for assistance only and are not required to be completed.

1. Does anyone in your organization have a direct or beneficial ownership share of greater than 5% of the bidding entity or parent entity? YES ___ NO___
2. Does anyone in your organization have a direct or beneficial ownership share of less than 5%, but which has a value greater than $102,600.00? YES ___ NO___
3. Does anyone in your organization receive more than $106,447.20 of the bidding entity's or parent entity's distributive income? (Note: Distributive income is, for these purposes, any type of distribution of profits. An annual salary is not distributive income.) YES ___ NO ___
4. Does anyone in your organization receive greater than 5% of the bidding entity's or parent entity's total distributive income, but which is less than $106,447.20? YES ___ NO ___

   (Note: Only one set of forms needs to be completed per person per bid even if a specific individual would require a yes answer to more than one question.)

A "YES" answer to any of these questions requires the completion of Form A. The bidder must determine each individual in the bidding entity or the bidding entity's parent company that would cause the questions to be answered "Yes". Each form must be signed and dated by a person that is authorized to execute contracts for your organization. **Photocopied or stamped signatures are not acceptable**. The person signing can be, but does not have to be, the person for which the form is being completed. The bidder is responsible for the accuracy of any information provided.

If the answer to each of the above questions is "NO", then the NOT APPLICABLE STATEMENT on page 2 of Form A must be signed and dated by a person that is authorized to execute contracts for your company.

Form B: **Identifying Other Contracts & Procurement Related Information** Disclosure Form B must be completed for each bid submitted by the bidding entity. *Note: Checking the NOT APPLICABLE STATEMENT on Form A does not allow the bidder to ignore Form B. Form B must be completed, checked, and dated or the bidder may be considered nonresponsive and the bid will not be accepted.*

The Bidder shall identify, by checking Yes or No on Form B, whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other (non-IDOT) State of Illinois agency. If "No" is checked, the bidder only needs to complete the check box on the bottom of Form B. If "Yes" is checked, the bidder must do one of the following:

Option I: If the bidder did not submit an Affidavit of Availability to obtain authorization to bid, the bidder must list all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. These items may be listed on Form B or on an attached sheet(s). Do not include IDOT contracts. Contracts with cities, counties, villages, etc. are not considered State of Illinois agency contracts and are not to be included. Contracts with other State of Illinois agencies such as the Department of Natural Resources or the Capital Development Board must be included. Bidders who submit Affidavits of Availability are suggested to use Option II.

Option II: If the bidder is required and has submitted an Affidavit of Availability in order to obtain authorization to bid, the bidder may write or type "See Affidavit of Availability" which indicates that the Affidavit of Availability is incorporated by reference and includes all non-IDOT State of Illinois agency pending contracts, leases, bids, proposals, and other ongoing procurement relationships. For any contracts that are not covered by the Affidavit of Availability, the bidder must identify them on Form B or on an attached sheet(s). These might be such things as leases.

D. Bidders Submitting More Than One Bid

Bidders submitting multiple bids may submit one set of forms consisting of all required Form A disclosures and one Form B for use with all bids. Please indicate in the space provided below the bid item that contains the original disclosure forms and the bid items which incorporate the forms by reference.

- The bid submitted for letting item _____ contains the Form A disclosures or Certification Statement and the Form B disclosures. The following letting items incorporate the said forms by reference:

_____

_____

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form A
Financial Information & Potential Conflicts of Interest Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Code (30 ILCS 500). Vendors desiring to enter into a contract with the State of Illinois must disclose the financial information and potential conflict of interest information as specified in this Disclosure Form. This information shall become part of the publicly available contract file. This Form A must be completed for bids in excess of $10,000, and for all open-ended contracts. **A publicly traded company may submit a 10K disclosure (or equivalent if applicable) in satisfaction of the requirements set forth in Form A. See Disclosure Form Instructions.**

DISCLOSURE OF FINANCIAL INFORMATION

1. Disclosure of Financial Information. The individual named below has an interest in the BIDDER (or its parent) in terms of ownership or distributive income share in excess of 5%, or an interest which has a value of more than $106,447.20 (60% of the Governor's salary as of 3/1/09). **(Make copies of this form as necessary and attach a separate Disclosure Form A for each individual meeting these requirements)**

FOR INDIVIDUAL (type or print information)

NAME: _____

ADDRESS _____

_____

Type of ownership/distributable income share:

stock _____ sole proprietorship _____ Partnership _____ other: (explain on separate sheet):

% or $ value of ownership/distributable income share: _____

2. Disclosure of Potential Conflicts of Interest. Check "Yes" or "No" to indicate which, if any, of the following potential conflict of interest relationships apply. If the answer to any question is "Yes", please attach additional pages and describe.

(a) State employment, currently or in the previous 3 years, including contractual employment of services.
Yes ___ No __

If your answer is yes, please answer each of the following questions.

1. Are you currently an officer or employee of either the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___ No __

2. Are you currently appointed to or employed by any agency of the State of Illinois? If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds $106,447.20, (60% of the Governor's salary as of 3/1/09) provide the name the State agency for which you are employed and your annual salary. _____
_____

3. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds $106,447.20, (60% of the Governor's salary as of 3/1/09) are you entitled to receive (i) more than 7 1/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No __

4. If you are currently appointed to or employed by any agency of the State of Illinois, and your annual salary exceeds $106,447.20, (60% of the Governor's salary as of 3/1/09) are you and your spouse or minor children entitled to receive (i) more than 15% in aggregate of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor? Yes ___ No __

(b) State employment of spouse, father, mother, son, or daughter, including contractual employment for services in the previous 2 years.

Yes ___No __

If your answer is yes, please answer each of the following questions.

1. Is your spouse or any minor children currently an officer or employee of the Capitol Development Board or the Illinois Toll Highway Authority? Yes ___No __

2. Is your spouse or any minor children currently appointed to or employed by any agency of the State of Illinois? If your spouse or minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $106,447.20, (60% of the Governor's salary as of 3/1/09) provide the name of the spouse and/or minor children, the name of the State agency for which he/she is employed and his/her annual salary. _____
_____

3. If your spouse or any minor children is/are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $106,447.20.00, (60% of the salary of the Governor as of 3/1/09) are you entitled to receive (i) more than 71/2% of the total distributable income of your firm, partnership, association or corporation, or (ii) an amount in excess of the salary of the Governor? Yes ___ No __

4. If your spouse or any minor children are currently appointed to or employed by any agency of the State of Illinois, and his/her annual salary exceeds $106,447.20, (60% of the Governor's salary as of 3/1/09) are you and your spouse or any minor children entitled to receive (i) more than 15% in the aggregate of the total distributable income from your firm, partnership, association or corporation, or (ii) an amount in excess of 2 times the salary of the Governor?

Yes ___ No __

(c) Elective status; the holding of elective office of the State of Illinois, the government of the United States, any unit of local government authorized by the Constitution of the State of Illinois or the statutes of the State of Illinois currently or in the previous 3 years. Yes ___No __

(d) Relationship to anyone holding elective office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(e) Appointive office; the holding of any appointive government office of the State of Illinois, the United State of America, or any unit of local government authorized by the Constitution of the State of Illinois or the statues of the State of Illinois, which office entitles the holder to compensation in excess of the expenses incurred in the discharge of that office currently or in the previous 3 years. Yes ___No __

(f) Relationship to anyone holding appointive office currently or in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___No __

(g) Employment, currently or in the previous 3 years, as or by any registered lobbyist of the State government. Yes ___No __

(h) Relationship to anyone who is or was a registered lobbyist in the previous 2 years; spouse, father, mother, son, or daughter. Yes ___ No __

(i) Compensated employment, currently or in the previous 3 years, by any registered election or reelection committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

(j) Relationship to anyone; spouse, father, mother, son, or daughter; who was a compensated employee in the last 2 years by any registered election or re-election committee registered with the Secretary of State or any county clerk of the State of Illinois, or any political action committee registered with either the Secretary of State or the Federal Board of Elections.
Yes ___ No __

APPLICABLE STATEMENT

This Disclosure Form A is submitted on behalf of the INDIVIDUAL named on previous page.

Completed by: ☐ _____ _____
Signature of Individual or Authorized Representative Date

NOT APPLICABLE STATEMENT

I have determined that no individuals associated with this organization meet the criteria that would require the completion of this Form A.

This Disclosure Form A is submitted on behalf of the CONTRACTOR listed on the previous page.

☐ _____ _____
Signature of Authorized Representative Date

RETURN WITH BID/OFFER

ILLINOIS DEPARTMENT OF TRANSPORTATION

Form B
Other Contracts & Procurement Related Information Disclosure

Contractor Name		
Legal Address		
City, State, Zip		
Telephone Number	Email Address	Fax Number (if available)

Disclosure of the information contained in this Form is required by the Section 50-35 of the Illinois Procurement Act (30 ILCS 500). This information shall become part of the publicly available contract file. This Form B must be completed for bids in excess of $10,000, and for all open-ended contracts.

DISCLOSURE OF OTHER CONTRACTS AND PROCUREMENT RELATED INFORMATION

1. Identifying Other Contracts & Procurement Related Information. The BIDDER shall identify whether it has any pending contracts (including leases), bids, proposals, or other ongoing procurement relationship with any other State of Illinois agency: Yes ___ No __
If "No" is checked, the bidder only needs to complete the signature box on the bottom of this page.

2. If "Yes" is checked. Identify each such relationship by showing State of Illinois agency name and other descriptive information such as bid or project number (attach additional pages as necessary). SEE DISCLOSURE FORM INSTRUCTIONS:

THE FOLLOWING STATEMENT MUST BE CHECKED

☐ _____ _____
Signature of Authorized Representative Date

RETURN WITH BID

SPECIAL NOTICE TO CONTRACTORS

The following requirements of the Illinois Department of Human Rights' Rules and Regulations are applicable to bidders on all construction contracts advertised by the Illinois Department of Transportation:

CONSTRUCTION EMPLOYEE UTILIZATION PROJECTION

(a) All bidders on construction contracts shall complete and submit, along with and as part of their bids, a Bidder's Employee Utilization Form (Form BC-1256) setting forth a projection and breakdown of the total workforce intended to be hired and/or allocated to such contract work by the bidder including a projection of minority and female employee utilization in all job classifications on the contract project.

(b) The Department of Transportation shall review the Employee Utilization Form, and workforce projections contained therein, of the contract awardee to determine if such projections reflect an underutilization of minority persons and/or women in any job classification in accordance with the Equal Employment Opportunity Clause and Section 7.2 of the Illinois Department of Human Rights' Rules and Regulations for Public Contracts adopted as amended on September 17, 1980. If it is determined that the contract awardee's projections reflect an underutilization of minority persons and/or women in any job classification, it shall be advised in writing of the manner in which it is underutilizing and such awardee shall be considered to be in breach of the contract unless, prior to commencement of work on the contract project, it submits revised satisfactory projections or an acceptable written affirmative action plan to correct such underutilization including a specific timetable geared to the completion stages of the contract.

(c) The Department of Transportation shall provide to the Department of Human Rights a copy of the contract awardee's Employee Utilization Form, a copy of any required written affirmative action plan, and any written correspondence related thereto. The Department of Human Rights may review and revise any action taken by the Department of Transportation with respect to these requirements.

RETURN WITH BID

Illinois Department of Transportation

Contract No. 63353
COOK County
Section 08-00079-03-FP (Lagrange)
Project M-9003(514)
Route FAU 1004 (Bluff Avenue)
District 1 Construction Funds

PART I. IDENTIFICATION

Dept. Human Rights # _____ Duration of Project: _____

Name of Bidder: _____

PART II. WORKFORCE PROJECTION

A. The undersigned bidder has analyzed minority group and female populations, unemployment rates and availability of workers for the location in which this contract work is to be performed, and for the locations from which the bidder recruits employees, and hereby submits the following workforce projection including a projection for minority and female employee utilization in all job categories in the workforce to be allocated to this contract:

TABLE A

TOTAL Workforce Projection for Contract													TABLE B: CURRENT EMPLOYEES TO BE ASSIGNED TO CONTRACT			
			MINORITY EMPLOYEES						TRAINEES				TOTAL EMPLOYEES		MINORITY EMPLOYEES	
JOB CATEGORIES	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.		APPREN-TICES		ON THE JOB TRAINEES					
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
OFFICIALS (MANAGERS)																
SUPERVISORS																
FOREMEN																
CLERICAL																
EQUIPMENT OPERATORS																
MECHANICS																
TRUCK DRIVERS																
IRONWORKERS																
CARPENTERS																
CEMENT MASONS																
ELECTRICIANS																
PIPEFITTERS, PLUMBERS																
PAINTERS																
LABORERS, SEMI-SKILLED																
LABORERS, UNSKILLED																
TOTAL																

TABLE C

TOTAL Training Projection for Contract								
EMPLOYEES IN TRAINING	TOTAL EMPLOYEES		BLACK		HISPANIC		*OTHER MINOR.	
	M	F	M	F	M	F	M	F
APPRENTICES								
ON THE JOB TRAINEES								

*Other minorities are defined as Asians (A) or Native Americans (N).
Please specify race of each employee shown in Other Minorities column.

FOR DEPARTMENT USE ONLY

BC 1256 (Rev. 12/11/08)

Note: See instructions on page 2

PART II. WORKFORCE PROJECTION - continued

B. Included in "Total Employees" under Table A is the total number of **new hires** that would be employed in the event the undersigned bidder is awarded this contract.

The undersigned bidder projects that: (number) _____ new hires would be recruited from the area in which the contract project is located; and/or (number) _____ new hires would be recruited from the area in which the bidder's principal office or base of operation is located.

C. Included in "Total Employees" under Table A is a projection of numbers of persons to be employed directly by the undersigned bidder as well as a projection of numbers of persons to be employed by subcontractors.

The undersigned bidder estimates that (number) _____ persons will be directly employed by the prime contractor and that (number) _____ persons will be employed by subcontractors.

PART III. AFFIRMATIVE ACTION PLAN

A. The undersigned bidder understands and agrees that in the event the foregoing minority and female employee utilization projection included under **PART II** is determined to be an underutilization of minority persons or women in any job category, and in the event that the undersigned bidder is awarded this contract, he/she will, prior to commencement of work, develop and submit a written Affirmative Action Plan including a specific timetable (geared to the completion stages of the contract) whereby deficiencies in minority and/or female employee utilization are corrected. Such Affirmative Action Plan will be subject to approval by the contracting agency and the **Department of Human Rights**.

B. The undersigned bidder understands and agrees that the minority and female employee utilization projection submitted herein, and the goals and timetable included under an Affirmative Action Plan if required, are deemed to be part of the contract specifications.

Company _____ Telephone Number _____

_____

Address _____

NOTICE REGARDING SIGNATURE

The Bidder's signature on the Proposal Signature Sheet will constitute the signing of this form. The following signature block needs to be completed only if revisions are required.

Signature: ☐ _____ Title: _____ Date: _____

Instructions: All tables must include subcontractor personnel in addition to prime contractor personnel.

Table A - Include both the number of employees that would be hired to perform the contract work and the total number currently employed (Table B) that will be allocated to contract work, and include all apprentices and on-the-job trainees. The "Total Employees" column should include all employees including all minorities, apprentices and on-the-job trainees to be employed on the contract work.

Table B - Include all employees currently employed that will be allocated to the contract work including any apprentices and on-the-job trainees currently employed.

Table C - Indicate the racial breakdown of the total apprentices and on-the-job trainees shown in Table A.

RETURN WITH BID

ADDITIONAL FEDERAL REQUIREMENTS

In addition to the Required Contract Provisions for Federal-Aid Construction Contracts (FHWA 1273), all bidders make the following certifications.

A. By the execution of this proposal, the signing bidder certifies that the bidding entity has not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action, in restraint of free competitive bidding in connection with the submitted bid. This statement made by the undersigned bidder is true and correct under penalty of perjury under the laws of the United States.

B. CERTIFICATION, EQUAL EMPLOYMENT OPPORTUNITY:

1. Have you participated in any previous contracts or subcontracts subject to the equal opportunity clause. YES _____ NO _____

2. If answer to #1 is yes, have you filed with the Joint Reporting Committee, the Director of OFCC, any Federal agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements of those organizations? YES _____ NO _____

RETURN WITH BID

Contract No. 63353
COOK County
Section 08-00079-03-FP (Lagrange)
Project M-9003(514)
Route FAU 1004 (Bluff Avenue)
District 1 Construction Funds

PROPOSAL SIGNATURE SHEET

The undersigned bidder hereby makes and submits this bid on the subject Proposal, thereby assuring the Department that all requirements of the Invitation for Bids and rules of the Department have been met, that there is no misunderstanding of the requirements of paragraph 3 of this Proposal, and that the contract will be executed in accordance with the rules of the Department if an award is made on this bid.

Firm Name _____

(IF AN INDIVIDUAL) Signature of Owner _____

Business Address _____

_____

Firm Name _____

By _____

(IF A CO-PARTNERSHIP) Business Address _____

_____

Name and Address of All Members of the Firm:

_____ _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A CORPORATION)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

(IF A JOINT VENTURE, USE THIS SECTION FOR THE MANAGING PARTY AND THE SECOND PARTY SHOULD SIGN BELOW) Business Address _____

Corporate Name _____

By _____
Signature of Authorized Representative

(IF A JOINT VENTURE)

_____
Typed or printed name and title of Authorized Representative

Attest _____
Signature

Business Address _____

_____

If more than two parties are in the joint venture, please attach an additional signature sheet.

Illinois Department of Transportation

Return with Bid

Division of Highways
Proposal Bid Bond
(Effective November 1, 1992)

Item No. _____

Letting Date _____

KNOW ALL MEN BY THESE PRESENTS, That We _____

_____

as PRINCIPAL, and _____

_____ as SURETY, are held jointly, severally and firmly bound unto the STATE OF ILLINOIS in the penal sum of 5 percent of the total bid price, or for the amount specified in Article 102.09 of the "Standard Specifications for Road and Bridge Construction" in effect on the date of invitation for bids, whichever is the lesser sum, well and truly to be paid unto said STATE OF ILLINOIS, for the payment of which we bind ourselves, our heirs, executors, administrators, successors and assigns.

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, that whereas, the PRINCIPAL has submitted a bid proposal to the STATE OF ILLINOIS, acting through the Department of Transportation, for the improvement designated by the Transportation Bulletin Item Number and Letting Date indicated above.

NOW, THEREFORE, if the Department shall accept the bid proposal of the PRINCIPAL; and if the PRINCIPAL shall, within the time and as specified in the bidding and contract documents, submit a DBE Utilization Plan that is accepted and approved by the Department; and if, after award by the Department, the PRINCIPAL shall enter into a contract in accordance with the terms of the bidding and contract documents including evidence of the required insurance coverages and providing such bond as specified with good and sufficient surety for the faithful performance of such contract and for the prompt payment of labor and material furnished in the prosecution thereof; or if, in the event of the failure of the PRINCIPAL to make the required DBE submission or to enter into such contract and to give the specified bond, the PRINCIPAL pays to the Department the difference not to exceed the penalty hereof between the amount specified in the bid proposal and such larger amount for which the Department may contract with another party to perform the work covered by said bid proposal, then this obligation shall be null and void, otherwise, it shall remain in full force and effect.

IN THE EVENT the Department determines the PRINCIPAL has failed to comply with any requirement as set forth in the preceding paragraph, then Surety shall pay the penal sum to the Department within fifteen (15) days of written demand therefor. If Surety does not make full payment within such period of time, the Department may bring an action to collect the amount owed. Surety is liable to the Department for all its expenses, including attorney's fees, incurred in any litigation in which it prevails either in whole or in part.

In TESTIMONY WHEREOF, the said PRINCIPAL and the said SURETY have caused this instrument to be signed by

their respective officers this _____ day of _____ A.D., _____ .

PRINCIPAL	**SURETY**
_____ (Company Name)	_____ (Company Name)
By _____ (Signature & Title)	By: _____ (Signature of Attorney-in-Fact)

Notary Certification for Principal and Surety

STATE OF ILLINOIS,
County of _____

I, _____ , a Notary Public in and for said County, do hereby certify that

_____ and _____
(Insert names of individuals signing on behalf of PRINCIPAL & SURETY)

who are each personally known to me to be the same persons whose names are subscribed to the foregoing instrument on behalf of PRINCIPAL and SURETY, appeared before me this day in person and acknowledged respectively, that they signed and delivered said instrument as their free and voluntary act for the uses and purposes therein set forth.

Given under my hand and notarial seal this _____ day of _____ A.D. _____

My commission expires _____ _____
Notary Public

In lieu of completing the above section of the Proposal Bid Form, the Principal may file an Electronic Bid Bond. By signing the proposal and marking the check box next to the Signature and Title line below, the Principal is ensuring the identified electronic bid bond has been executed and the Principal and Surety are firmly bound unto the State of Illinois under the conditions of the bid bond as shown above.

☐

_____	_____	_____
Electronic Bid Bond ID#	Company / Bidder Name	Signature and Title

PROPOSAL ENVELOPE

Illinois Department of Transportation

PROPOSALS

for construction work advertised for bids by the
Illinois Department of Transportation

Item No.	Item No.	Item No.

Submitted By:

Name:
Address:
Phone No.

Bidders should use an IDOT proposal envelope or affix this form to the front of a 10” x 13” envelope for the submittal of bids. If proposals are mailed, they should be enclosed in a second or outer envelope addressed to:

Engineer of Design and Environment - Room 326
Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, Illinois 62764

NOTICE

Individual bids, including Bid Bond and/or supplemental information if required, should be securely stapled.

CONTRACTOR OFFICE COPY OF CONTRACT SPECIFICATIONS

NOTICE

None of the following material needs to be returned with the bid package unless the special provisions require documentation and/or other information to be submitted.

Contract No. 63353
COOK County
Section 08-00079-03-FP (Lagrange)
Project M-9003(514)
Route FAU 1004 (Bluff Avenue)
District 1 Construction Funds

Illinois Department of Transportation

Illinois Department of Transportation

NOTICE TO BIDDERS

1. **TIME AND PLACE OF OPENING BIDS.** Sealed proposals for the improvement described herein will be received by the Department of Transportation at the Harry R. Hanley Building, 2300 South Dirksen Parkway, in Springfield, Illinois until 10:00 o'clock a.m., April 23, 2010. All bids will be gathered, sorted, publicly opened and read in the auditorium at the Department of Transportation's Harry R. Hanley Building shortly after the 10:00 a.m. cut off time.

2. **DESCRIPTION OF WORK**. The proposed improvement is identified and advertised for bids in the Invitation for Bids as:

   Contract No. 63353
   COOK County
   Section 08-00079-03-FP (Lagrange)
   Project M-9003(514)
   Route FAU 1004 (Bluff Avenue)
   District 1 Construction Funds

Reconstruction of roadway pavement, installation of storm sewer, relocation and replacement of water main, installation of sanitary sewer and all other incidental items to complete the work on FAU Route 1004 (Bluff Avenue) from 47th Street to Cossitt Avenue in the village of LaGrange.

3. **INSTRUCTIONS TO BIDDERS**. (a) This Notice, the invitation for bids, proposal and letter of award shall, together with all other documents in accordance with Article 101.09 of the Standard Specifications for Road and Bridge Construction, become part of the contract. Bidders are cautioned to read and examine carefully all documents, to make all required inspections, and to inquire or seek explanation of the same prior to submission of a bid.

   (b) State law, and, if the work is to be paid wholly or in part with Federal-aid funds, Federal law requires the bidder to make various certifications as a part of the proposal and contract. By execution and submission of the proposal, the bidder makes the certification contained therein. A false or fraudulent certification shall, in addition to all other remedies provided by law, be a breach of contract and may result in termination of the contract.

4. **AWARD CRITERIA AND REJECTION OF BIDS**. This contract will be awarded to the lowest responsive and responsible bidder considering conformity with the terms and conditions established by the Department in the rules, Invitation for Bids and contract documents. The issuance of plans and proposal forms for bidding based upon a prequalification rating shall not be the sole determinant of responsibility. The Department reserves the right to determine responsibility at the time of award, to reject any or all proposals, to readvertise the proposed improvement, and to waive technicalities.

By Order of the
Illinois Department of Transportation

Gary Hannig,
Secretary

INDEX
FOR
SUPPLEMENTAL SPECIFICATIONS
AND RECURRING SPECIAL PROVISIONS

Adopted January 1, 2010

This index contains a listing of SUPPLEMENTAL SPECIFICATIONS and frequently used RECURRING SPECIAL PROVISIONS.

SUPPLEMENTAL SPECIFICATIONS

RECURRING SPECIAL PROVISIONS

The following RECURRING SPECIAL PROVISIONS indicated by an "X" are applicable to this contract and are included by reference:

INDEX OF SPECIAL PROVISIONS

INDEX LOCAL ROADS AND STREETS SPECIAL PROVISIONS

LR #	Pg #		Special Provision Title	Effective	Revised
LR SD 12		☐	Slab Movement Detection Device	Nov. 11, 1984	Jan. 1, 2007
LR SD 13		☐	Required Cold Milled Surface Texture	Nov. 1, 1987	Jan. 1, 2007
LR 102		☐	Protests on Local Lettings	Jan. 1, 2006	
LR 105	**124**	☒	Cooperation with Utilities	Jan. 1, 1999	Jan. 1, 2007
LR 107-2		☐	Railroad Protective Liability Insurance for Local Lettings	Mar. 1, 2005	Jan. 1, 2006
LR 107-3		☐	Disadvantaged Business Enterprise Participation	Jan. 1, 2007	Nov. 1, 2008
LR 107-4	**127**	☒	Insurance	Feb. 1, 2007	Aug. 1, 2007
LR 107-5		☐	Substance Abuse Prevention Program	Jan. 1, 2008	Jan. 8, 2008
LR 108		☐	Combination Bids	Jan. 1, 1994	Mar. 1, 2005
LR 212		☐	Shaping Roadway	Aug. 1, 1969	Jan. 1, 2002
LR 355-1		☐	Asphalt Stabilized Base Course, Road Mix or Traveling Plant Mix	Oct. 1, 1973	Jan. 1, 2007
LR 355-2		☐	Asphalt Stabilized Base Course, Plant Mix	Feb. 20, 1963	Jan. 1, 2007
LR 400-1		☐	Bituminous Treated Earth Surface	Jan. 1, 2007	Jan. 1, 2008
LR 400-2		☐	Bituminous Surface Mixture (Class B)	Jan. 1, 2008	
LR 402		☐	Salt Stabilized Surface Course	Feb. 20, 1963	Jan. 1, 2007
LR 403-2		☐	Bituminous Hot Mix Sand Seal Coat	Aug. 1, 1969	Jan. 1, 2007
LR 406		☐	Filling HMA Core Holes with Non-shrink Grout	Jan. 1, 2008	
LR 420		☐	PCC Pavement (Special)	May 12, 1964	Jan. 2, 2007
LR 442		☐	Bituminous Patching Mixtures for Maintenance Use	Jan. 1, 2004	Jun. 1, 2007
LR 451		☐	Crack Filling Bituminous Pavement with Fiber-Asphalt	Oct. 1, 1991	Jan. 1, 2007
LR 503-1		☐	Furnishing Class SI Concrete	Oct. 1, 1973	Jan. 1, 2002
LR 503-2		☐	Furnishing Class SI Concrete (Short Load)	Jan. 1, 1989	Jan. 1, 2002
LR 542		☐	Pipe Culverts, Type _____ (Furnished)	Sep. 1, 1964	Jan. 1, 2007
LR 663		☐	Calcium Chloride Applied	Jun. 1, 1958	Jan. 1, 2007
LR 702		☐	Construction and Maintenance Signs	Jan. 1, 2004	Jun. 1, 2007
LR 1004		☐	Coarse Aggregate for Bituminous Surface Treatment	Jan. 1, 2002	Jan. 1, 2007
LR 1013		☐	Rock Salt (Sodium Chloride)	Aug. 1, 1969	Jan. 1, 2002
LR 1030		☐	Growth Curve	Mar. 1, 2008	
LR 1032-1		☐	Emulsified Asphalts	Jan. 1, 2007	Feb. 7, 2008
LR 1032-2		☐	Multigrade Cold Mix Asphalt	Jan. 1, 2007	Feb. 1, 2007
LR 1102		☐	Road Mix or Traveling Plan Mix Equipment	Jan. 1, 2007	

BDE SPECIAL PROVISIONS
For the April 23 and June 11, 2010 Lettings

The following special provisions indicated by an "x" are applicable to this contract. An * indicates a new or revised special provision for the letting.

File Name	Pg #		Special Provision Title	Effective	Revised
80240			Above Grade Inlet Protection	July 1, 2009	
80099			Accessible Pedestrian Signals (APS)	April 1, 2003	Jan. 1, 2007
80243			American Recovery and Reinvestment Act Provisions	April 1, 2009	
80236			American Recovery and Reinvestment Act Signing	April 1, 2009	April 15, 2009
80186	128	X	Alkali-Silica Reaction for Cast-in-Place Concrete	Aug. 1, 2007	Jan. 1, 2009
80213	131	X	Alkali-Silica Reaction for Precast and Precast Prestressed Concrete	Jan. 1, 2009	
80207	134	X	Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders	Nov. 1, 2008	
80192			Automated Flagger Assistance Device	Jan. 1, 2008	
80173			Bituminous Materials Cost Adjustments	Nov. 2, 2006	April 1, 2009
80241			Bridge Demolition Debris	July 1, 2009	
* 5026I			Building Removal-Case I (Non-Friable and Friable Asbestos)	Sept. 1, 1990	April 1, 2010
* 5048I			Building Removal-Case II (Non-Friable Asbestos)	Sept. 1, 1990	April 1, 2010
* 5049I			Building Removal-Case III (Friable Asbestos)	Sept. 1, 1990	April 1, 2010
* 5053I			Building Removal-Case IV (No Asbestos)	Sept. 1, 1990	April 1, 2010
80166	135	X	Cement	Jan. 1, 2007	April 1, 2009
80198			Completion Date (via calendar days)	April 1, 2008	
80199			Completion Date (via calendar days) Plus Working Days	April 1, 2008	
80094	138	X	Concrete Admixtures	Jan. 1, 2003	April 1, 2009
80214			Concrete Gutter, Type A	Jan. 1, 2009	
80215			Concrete Joint Sealer	Jan. 1, 2009	
80226			Concrete Mix Designs	April 1, 2009	
80237	142	X	Construction Air Quality – Diesel Vehicle Emissions Control	April 1, 2009	July 1, 2009
80239	144	X	Construction Air Quality – Idling Restrictions	April 1, 2009	
80227	146	X	Determination of Thickness	April 1, 2009	
80177			Digital Terrain Modeling for Earthwork Calculations	April 1, 2007	
* 80029	158	X	Disadvantaged Business Enterprise Participation	Sept. 1, 2000	Jan. 1, 2010
80178	167	X	Dowel Bars	April 1, 2007	Jan. 1, 2008
80179			Engineer's Field Office Type A	April 1, 2007	Aug. 1, 2008
80205			Engineer's Field Office Type B	Aug. 1, 2008	
80189	168	X	Equipment Rental Rates	Aug. 2, 2007	Jan. 2, 2008
80244	170	X	Filter Fabric	Nov. 1, 2009	Jan. 1, 2010
80228			Flagger at Side Roads and Entrances	April 1, 2009	
80249			Frames and Grates	Jan. 1, 2010	
80229			Fuel Cost Adjustment	April 1, 2009	July 1, 2009
80169			High Tension Cable Median Barrier	Jan. 1, 2007	April 1, 2009
80194	171	X	HMA – Hauling on Partially Completed Full-Depth Pavement	Jan. 1, 2008	
80245	173	X	Hot-Mix Asphalt – Anti-Stripping Additive	Nov. 1, 2009	
80246	174	X	Hot-Mix Asphalt – Density Testing of Longitudinal Joints	Jan. 1, 2010	
80250	175	X	Hot-Mix Asphalt – Drop-Offs	Jan. 1, 2010	
* 80259			Hot-Mix Asphalt – Fine Aggregate	April 1, 2010	
80201	176	X	Hot-Mix Asphalt – Plant Test Frequency	April 1, 2008	Jan. 1, 2010
80251	178	X	Hot-Mix Asphalt – QC/QA Acceptance Criteria	Jan. 1, 2010	
80202	179	X	Hot-Mix Asphalt – Transportation	April 1, 2008	
80109			Impact Attenuators	Nov. 1, 2003	Nov. 1, 2008
80110			Impact Attenuators, Temporary	Nov. 1, 2003	Jan. 1, 2007
80252			Improved Subgrade	Jan. 1, 2010	
80230	180	X	Liquidated Damages	April 1, 2009	
80196			Mast Arm Assembly and Pole	Jan. 1, 2008	Jan. 1, 2009
80045			Material Transfer Device	June 15, 1999	Jan. 1, 2009
80203	181	X	Metal Hardware Cast into Concrete	April 1, 2008	April 1, 2009
80165			Moisture Cured Urethane Paint System	Nov. 1, 2006	Jan. 1, 2010

File Name	Pg #		Special Provision Title	Effective	Revised
* 80238			Monthly Employment Report	April 1, 2009	Jan. 1, 2010
80253			Movable Traffic Barrier System	Jan. 1, 2010	
80082	**182**	X	Multilane Pavement Patching	Nov. 1, 2002	
80180	**183**	X	National Pollutant Discharge Elimination System / Erosion and Sediment Control Deficiency Deduction	April 1, 2007	Nov. 1, 2009
80208			Nighttime Work Zone Lighting	Nov. 1, 2008	
80182			Notification of Reduced Width	April 1, 2007	
80069			Organic Zinc-Rich Paint System	Nov. 1, 2001	Jan. 1, 2010
80216			Partial Exit Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80231			Pavement Marking Removal	April 1, 2009	
80254	**185**	X	Pavement Patching	Jan. 1, 2010	
80022	**186**	X	Payments to Subcontractors	June 1, 2000	Jan. 1, 2006
80209	**188**	X	Personal Protective Equipment	Nov. 1, 2008	
* 80232			Pipe Culverts	April 1, 2009	April 1, 2010
80119			Polyurea Pavement Marking	April 1, 2004	Jan. 1, 2009
80210			Portland Cement Concrete Inlay or Overlay	Nov. 1, 2008	
80170	**189**	X	Portland Cement Concrete Plants	Jan. 1, 2007	
80217			Post Clips for Extruded Aluminum Signs	Jan. 1, 2009	
80171	**191**	X	Precast Handling Holes	Jan. 1, 2007	
80218			Preventive Maintenance – Bituminous Surface Treatment	Jan. 1, 2009	April 1, 2009
80219			Preventive Maintenance – Cape Seal	Jan. 1, 2009	April 1, 2009
80220			Preventive Maintenance – Micro-Surfacing	Jan. 1, 2009	
80221			Preventive Maintenance – Slurry Seal	Jan. 1, 2009	
80211			Prismatic Curb Reflectors	Nov. 1, 2008	
80015			Public Convenience and Safety	Jan. 1, 2000	
3426I			Railroad Protective Liability Insurance	Dec. 1, 1986	Jan. 1, 2006
80157			Railroad Protective Liability Insurance (5 and 10)	Jan. 1, 2006	
* 80247	**193**	X	Raised Reflective Pavement Markers	Nov. 1, 2009	April 1, 2010
80223			Ramp Closure for Freeway/Expressway	Jan. 1, 2009	
80172			Reclaimed Asphalt Pavement (RAP)	Jan. 1, 2007	Jan. 1, 2010
80183	**194**	X	Reflective Sheeting on Channelizing Devices	April 1, 2007	Nov. 1, 2008
80206			Reinforcement Bars – Storage and Protection	Aug. 1, 2008	April 1, 2009
80224			Restoring Bridge Approach Pavements Using High-Density Foam	Jan. 1, 2009	
80131			Seeding	July 1, 2004	Jan. 1, 2010
80152	**195**	X	Self-Consolidating Concrete for Cast-In-Place Construction	Nov. 1, 2005	Jan. 1, 2009
80132	**200**	X	Self-Consolidating Concrete for Precast Products	July 1, 2004	Jan. 1, 2007
80127			Steel Cost Adjustment	April 2, 2004	April 1, 2009
80255			Stone Matrix Asphalt	Jan. 1, 2010	
* 80234	**202**	X	Storm Sewers	April 1, 2009	April 1, 2010
80143	**209**	X	Subcontractor Mobilization Payments	April 2, 2005	
80075			Surface Testing of Pavements	April 1, 2002	Jan. 1, 2007
80087	**210**	X	Temporary Erosion Control	Nov. 1, 2002	Jan. 1, 2010
80256			Temporary Longitudinal Traffic Barrier System	Jan. 1, 2010	
80225			Temporary Raised Pavement Marker	Jan. 1, 2009	
80176	**212**	X	Thermoplastic Pavement Markings	Jan. 1, 2007	
80257			Traffic Barrier Terminal, Type 6	Jan. 1, 2010	
20338	**214**	X	Training Special Provisions	Oct. 15, 1975	
80258			Truck Mounted/Trailer Mounted Attenuators	Jan. 1, 2010	
80071	**217**	X	Working Days	Jan. 1, 2002	

The following special provisions are in the 2010 Supplemental Specifications and Recurring Special Provisions:

File Name	Special Provision Title	New Location	Effective	Revised
80193	Concrete Barrier	Section 637	Jan. 1, 2008	
80175	Epoxy Pavement Markings	Section 1095	Jan. 1, 2007	
80181	Hot-Mix Asphalt – Field Voids in the Mineral Aggregate	Section 1030	April 1, 2007	April 1, 2008
80136	Hot-Mix Asphalt Mixture IL-4.75	Sections 406, 1003, 1030, 1032 and 1102	Nov. 1, 2004	Jan. 1, 2008
80195	Hot-Mix Asphalt Mixture IL-9.5L	Sections 1004 and 1030	Jan. 1, 2008	
80129	Notched Wedge Longitudinal Joint	Section 406	July 1, 2004	Jan. 1, 2007
80235	Payrolls and Payroll Records	Check Sheets #1 and #5	Mar. 1, 2009	July 1, 2009
80134	Plastic Blockouts for Guardrail	Section 630	Nov. 1, 2004	Jan. 1, 2007
80151	Reinforcement Bars	Section 1006	Nov. 1, 2005	April 1, 2009
80184	Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	Sections 1090, 1091, 1092 and 1093	April 1, 2007	
80212	Sign Panels and Sign Panel Overlays	Supplemental	Nov. 1, 2008	
80197	Silt Filter Fence	Sections 1080 and 1081	Jan. 1, 2008	
80153	Steel Plate Beam Guardrail	Section 1006	Nov. 1, 2005	Aug. 1, 2007
80191	Stone Gradation Testing	Section 1005	Nov. 1, 2007	
80185	Type ZZ Retroreflective Sheeting, Nonreflective Sheeting, and Translucent Overlay Film for Highway Signs	Sections 1090, 1091, 1092 and 1093	April 1, 2007	
80149	Variable Spaced Tining	Section 420	Aug. 1, 2005	Jan. 1, 2007
80204	Woven Wire Fence	Section 1006	April 1, 2008	

The following special provisions require additional information from the designer. The additional information needs to be included in a separate document attached to this check sheet. The Project Development and Implementation section will then include the information in the applicable special provision. The Special Provisions are:

- Bridge Demolition Debris
- Building Removal-Case I
- Building Removal-Case II
- Building Removal-Case III
- Building Removal-Case IV
- Completion Date
- Completion Date Plus Working Days
- DBE Participation
- Material Transfer Device
- Railroad Protective Liability Insurance
- Training Special Provisions
- Working Days

STATE OF ILLINOIS
SPECIAL PROVISIONS

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2007, (hereinafter referred to as the Standard Specifications) the latest edition of the "Illinois Manual on Uniform Traffic Control Devices for Street and Highways" in effect on the date of invitation for bids, the "Supplemental Specifications and Recurring Special Provisions" indicated on the check sheet provided herein, which apply to and govern the construction of FAU Route 1004 (Bluff Avenue), Section 08-00079-03-FP, Contract No. 63353, in Cook County and, in case of conflict with any part of said specifications, the said Special Provisions shall take precedence and shall govern.

1. LOCATION OF IMPROVEMENT

The proposed improvement is located entirely within the Village of La Grange, Cook County, Illinois. The project, which is defined by the Bluff Avenue (FAU 1004) roadway, is situated within the northeastern portion of the Village of La Grange. The project, which has a net length of 3,060.22 linear feet (0.580 miles), interconnects with Cossitt Avenue (FAU 1365), and 47th Street (FAU 1488).

2. DESCRIPTION OF IMPROVEMENT

The project's primary purpose is to provide for the reconstruction of the existing pavement and associated infrastructure within the Bluff Avenue right-of-way. In addition the project provides for the reconstruction of the Maple Avenue pavement within the right-of-way between Bluff Avenue and the Indiana Harbor Belt Railroad (IHBRR) right-of-way.

The project can be divided into four main components; the reconstruction of roadway pavement, the installation of storm sewer, the relocation and replacement of water main, and the installation of sanitary sewer. The pavement reconstruction component includes full depth pavement removal, curb and gutter removal, sidewalk and driveway removal, earth excavation and grading to specified elevations, installation of an aggregate sub-base, hot-mix asphalt base, binder and surface courses, combination concrete curb and gutter, sidewalk, driveways, pavement markings, signs, landscape restoration, and all appurtenant items. The storm sewer component includes the removal or abandonment of portions of the existing combination sewer, manholes, catch basins, inlet structures, and the installation of new storm sewer, manholes, catch basins, inlet structures. The storm sewer construction also includes the installation of a new 60" diameter sewer by open cut construction methods to an existing 60" sewer constructed as a part of Bluff Avenue Stage 2 Construction. The water main replacement component involves the installation of new water main along alignments that are generally inside the roadway pavement limits. This work includes the removal or abandonment of existing water main, fire hydrants, valves, and services, and the installation of new water main, fire hydrants, water valves, vaults, boxes and services. The sanitary sewer replacement component involves the removal or abandonment of portions of existing combination sewer, manholes, and service laterals, and the installation of new sanitary sewer, manholes and service laterals.

3. MWRD REQUIREMENTS

The sewer construction specified for this project will be completed under a permit issued by the Metropolitan Water Reclamation District of Greater Chicago (MWRD). The sewer work is to be constructed in conformance of the requirements outlined by the permit, either by specification or by reference.

4. IEPA REQUIREMENTS

The water main construction specified for this project will be completed under a permit issued by the Illinois Environmental Protection Agency (IEPA) for modifications to the public water supply. The water main work is to be constructed in conformance of the requirements outlined by the permit, either by specification or by reference.

5. RAILROAD REQUIREMENTS

As the project will involve construction of improvements within twenty-five feet (25') of an active railroad track of the Indiana Harbor Belt Railroad (IHBRR), it is the responsibility of the Contractor to satisfy the railroad's requirements in staging construction and material storage, providing for work site safety, and satisfying any insurance provisions. The Contractor shall obtain necessary permits, and submit necessary documentation before initiating operations within the twenty-five foot work zone. The Contractor shall contact the IHBRR to review these requirements, as generally outlined below.

a) Contractor shall obtain the approval of the railroad for using their right-of-way for storing and staging materials and equipment, as may be identified in relationship to this project.

b) The Contractor shall satisfy any of the flagmen requirements of the railroad, if required, when staging operations within twenty-five feet (25') of the railroad track. The cost for railroad flaggers shall be reimbursed on a force account basis in accordance with Article 109.05 of the Standard Specifications.

c) The Contractor shall be advised that the IHBRR is heavily traveled.

d) The IHBRR offices are located at 2721 161st Street, Hammond, Indiana 46323. Questions should be directed to a Mr. Eduardo Garcia, Manager of Engineering Services for clarification of construction policy and permit requirements. (219-989-4910).

6. CONSTRUCTION SCHEDULE

Prior to the initiation of the work, the Contractor shall provide the Engineer with a schedule for staging the completion of the various components of the project, so that the work can be completed within the specified contract time.

It is also noted that at times, roadway segments will need to be closed to construct the improvements, disrupting access to all properties served by the route. Given this situation, provisions must be made to accommodate and protect pedestrian traffic and route vehicular traffic

around work zones. The duration of roadway closure shall also be minimized to lessen the disruption to traffic. Planning for temporary traffic control measures shall provide for staging of work to facilitate property access.

In consideration of the planned improvements, the Contractor shall prepare and submit a detailed progress schedule for the Engineer's approval before the work can be started. The schedule shall detail the time allocated for such key activities as site demolition and excavation, installation of underground utilities, pavement construction, pavement marking, and landscaping. Construction staging required to complete the improvements shall also be documented. The construction schedule shall provide for simultaneous operations where possible to reduce the duration of the project. The construction work should be sequenced in an order that maximizes work progress without causing conflicts in operation. The Contractor will not be allowed any extra compensation for longer working hours or using extra shifts, working on weekends or during holidays, working during winter months, etc., to meet the specified working days.

7. TREE PROTECTION AND PRESERVATION

Tree Trunk Protection shall be performed and paid for in accordance with Section 201 of the Standard Specifications, as detailed on the plans, specifications, and/or as directed by the Engineer.

Payment for this item shall be made at the Contract Unit Price per Each for TREE PROTECTION AND PRESERVATION including placement, maintenance, removal and disposal, and all work and materials required to meet the requirements of the project.

8. PLANTING WOODY PLANTS

Planting Woody Plants shall be performed and paid for in accordance with Section 253 of the Standard Specifications, as detailed on the plans, as modified in specifications, and/or as directed by the Engineer.

Trees to be planted shall be of the size and species specified on the plans and in accordance with the Village of La Grange's specifications and the Suburban Tree Consortium Manual. Trees must be grown in soils consistent with the soils at the project site, silty clays, by an IDOT qualified nursery.

9. GEO-TECHNICAL DATA

Soil condition and pavement profile data has been obtained at various locations along the route of construction to aid in the construction planning and work execution. The location of each boring and a summary of findings are noted on the plan sheets depicting existing work site conditions. The contractor is encouraged to review the geotechnical data when considering or planning construction operations. The complete written reports of findings of the geo-technical investigations are included as an attachment to the Special Provisions.

10. WATER USAGE DURING CONSTRUCTION

Potable water used during the course of the construction of this project shall be metered consistent with the requirements of the Village of La Grange. Although the Village does not charge for the use

of water during construction, the water volume used must be metered and documented for water accounting purposes. All work associated with securing the meter and using the water shall be the responsibility of the Contractor and is included in the cost of mobilization. The use of fire hydrants shall be restricted to the hydrants specified by the Village of La Grange Public Works Department for use for the project. Metering equipment shall be provided with an acceptable backflow prevention device, consistent with the requirements of the latest AWWA/ANSI code. Metering equipment is available at the La Grange Department of Public Works offices located at 320 South East Avenue, La Grange, Illinois (708-579-2328).

11. WATER VALVES

This work shall be in accordance with Section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

Where indicated on the plans, new water valves of the size specified shall be installed. The valves shall be a resilient seated gate type approved by the Village of La Grange, manufactured to meet all applicable requirements of the AWWA standards for resilient seated gate valves, C509-80, C500, and C504. Valve seats shall be bubble tight (zero leakage) at 200 psi working water pressure. Valves shall have non-rising stems, opening by turning left and provided with a two inch (2") square nut with arrow cast into the flange metal to indicate direction of opening. Each valve shall have the manufacturers name, pressure rating, and year of manufacture cast onto the valve body. Prior to shipping from the factory each valve shall be pressure tested with hydrostatic pressure to equal that specified by AWWA Standard 504 for Class 150 valves. Each valve shall have a smooth unobstructed waterway free from any sediment pockets. The cast iron valve gate shall have a specially contoured molded rubber coating bonded permanently to the gate in conformance with ASTM D429-73. The bronze stem nut shall be integrally cast in the cast iron gate to prevent binding, twisting, or angling. An anti friction washer shall be located above the thrust collar portion of the stem to reduce friction and to provide a more effective conversion of operating torque into seating loads. Stuffing boxes shall have "O" rings with two rings located above the thrust collar. The space between the "O" rings is to be filled with a lubricant to reduce operating torque and wear. The stem shall be made of rolled bronze integral with the thrust collar. The exterior of the valve shall be coated with an asphaltic varnish. The interior of the valve shall be covered with a thermosetting epoxy coating, approved for the water handling environment.

Payment for this item shall be made at the Contract unit price per Each for WATER VALVES of the size specified, including installation, dry blocking, end sections as specified, and all other work and material necessary to install the item as detailed.

12. VALVE BOXES

This work shall be in accordance with Section 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

In locations specified on the plans, 5-1/4 inches in diameter cast iron valve boxes shall be installed with sufficient length to permit the top to be adjusted at least three inches above finish grade. Each

valve box shall be provided with a cover with the word "water" cast in the top. All valve boxes shall include and be installed with polyethylene box stabilizer inserts.

Payment for this item shall be made at the Contract unit price per Each for VALVE BOX of the size indicated, including installation, dry blocking, end sections as specified and all other work and material necessary to install the item as detailed.

13. DUCTILE IRON WATER MAIN

This work shall be in accordance with section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

The water main shall be manufactured of cast ductile iron material conforming to ANSI A-21.51 (AWWA C-151), Class 56 thickness, designed per ANSI A-21.20 (AWWA C-150) tar seal coated and cement lined per ANSI A-21.40 (AWWA C-104), with mechanical rubber gasket or push joints.

Pipe bedding and the initial backfill shall be included in the cost of the water main and will be installed in accordance with and as detailed on the plans.

All water main installed as part of this project shall be polyethylene encased for corrosion protection. The polyethylene film shall have an 8mil minimum thickness and shall conform to ANSI/AWWA C105/A21.5-93. The encasement tube shall be installed and securely taped in accordance with manufacturer's specifications. Damaged encasement tube shall be repaired with tape and/or a polyethylene tube patch in accordance with manufacturer's specifications. All new water main and ductile iron fittings installed in trench or installed in short casing pipe sleeves bridging sewer locations shall be encased. Encasement shall extend to valve positions within vaults. Encasement shall be omitted through long augered casing installations. The cost for the polyethylene encasement, including its installation, rip and puncture repairs, adhesive tape, and all other associated materials and work items, shall be included in the cost of the water main contract item.

This work will be measured for payment in place in feet in accordance with Section 561 of the Standard Specifications.

Payment for this item shall be made at the Contract unit price per Foot for DUCTILE IRON WATER MAIN of the diameter specified, including trench construction, bedding placement, polyethylene encasement, pipe installation, and all labor equipment, and materials required to conform to the project requirements.

14. WATER MAIN CASING 24"

This work shall be in accordance with section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

Where indicated on the plans, ductile iron water main pipe of the size indicated shall be placed through a water main quality casing pipe. The water main installed through the casing pipe shall not

be polyethylene encased.

Pipe shall be centered within the casing and provided structural support within the casing by casing spacers. The 8" wide casing spacer band and each riser shall be constructed with T304 stainless steel. The shell shall have a poly-vinyl chloride liner to protect and isolate the pipe from the metal shell. The plastic runners used for bearing surfaces and to isolate the pipe from the casing pipe shall be fabricated with a high molecular weight polymer or fiber reinforced plastic. All bolt hardware shall be T304 stainless steel. The spacer assembly shall be equal to that manufactured by the Cascade Waterworks Manufacturing Company of Yorkville, Illinois, or the Pipeline Seal and Insulator Company of Houston, Texas.

The casing spacers shall be placed at intervals approximating 8 feet within the casing pipe, and shall be installed within 2 feet of each pipe joint, with a mid-span spacer installed to fully support the pipe. The placement shall also result in spacers being positioned within 2 feet of each end of the casing pipe, where the transition to open trench occurs. The spacers shall be configured to provide a restrained alignment to ensure that the water main pipe does not shift in location when subjected to hydrostatic pressure forces or buoyancy forces. The Contractor shall confirm the dimension of spacers with respect to the casing pipe and water main pipe dimensions. The Contractor shall ensure that design elevation of the water main pipe within the casing is maintained, with consideration given for spacer ring dimensions and installation requirements. Casing spacers obtained for water main installations shall be configured to center the water main through the casing pipe. The cost for casing pipe spacer rings and their installation shall be included in the cost of the casing contract pay item.

The ends of the casing are to be sealed using casing end seals as manufactured by the Cascade Waterworks Manufacturing Company of Yorkville, Illinois, or the Pipeline Seal and Insulator Company of Houston, Texas or an approved equal. The casing end seals are included in the cost of the casing contract pay item.

This work will be measured for payment in place in feet in accordance with Section 561 of the Standard Specifications.

Payment for this item shall be made at the Contract unit price per Foot for WATER MAIN CASING 24", including work site preparations, excavation, disposal of excavated material, pipe and gaskets, casing pipe spacer rings, casing ends, pipe insertion, blocking, backfilling, and all other work and materials required to place the water main within the casing pipe and to the lines and grades specified.

15. FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX

This work shall be in accordance with Section 564 of the Standard Specification, the Standard Specification for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified herein.

At locations indicated on the plan, new fire hydrants meeting municipal requirements are to be installed. The hydrants shall have a five and one-quarter inch intake diameter and be manufactured with a break-away flange design. The hydrant casting shall include one steamer port and two hose ports each with National Standard Threads. The new hydrant assembly shall include a standard 6 inch auxiliary valve, valve box and fittings. The hydrant shall be a Mueller Super Centurion 250, a

Clow F2500 type, or approved equal. The hydrant shall be installed as detailed on the plan so that the finished soil grade is eighteen inches below the steamer port. Hydrant elevation shall be set to the elevation specified on the plans. Hydrant bracing, setting adjustments, and grade adjustments, including extensions, shall be considered to be incidental to the hydrant installation.

Reaction or thrust blocking shall be provided at each hydrant, valve, bend, tee, or other fittings where changes in pipe diameters or direction occur. In addition, ductile cast iron joint restraints or retainer glands shall be installed. The retainer glands shall be equal to the *Megalug* series 1100 restraints meeting Village of La Grange standards or approved equal. In areas where soil support for thrust blocking or restraints is deemed inadequate or projected thrust forces too great, anchorage may also be required which joins the fittings to the water main with tie rods and clamps. Reaction or thrust blocking shall be included in the cost of the contract pay item for FIRE HYDRANT WITH AUXILIARY VALVE AND VALVE BOX.

Payment shall be made at the Contract unit price per Each for FIRE HYDRANT WITH AUXILLARY VALVE AND VALVE BOX, including the preparation and installation of fire hydrant, valve, fittings, valve box grips, pipe cutting, excavation and disposal of excess material, thrust blocking, pea gravel, grade adjustments, extensions, flushing, testing and all other materials and work necessary to complete the installation consistent with the Standard Specifications.

16. FIRE HYDRANTS TO BE REMOVED

This work shall be in accordance with Section 564 of the Standard Specification, the Standard Specification for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified herein.

At locations indicated on the plan existing fire hydrants are to be removed to avoid conflicts with the roadway improvements, following the abandonment of designated portions of the existing water main. Items deemed salvageable by the La Grange Department of Public Works or their designated representative shall be delivered to the Village of La Grange's Public Works garage.

Payment shall be made at the Contract unit price per Each for FIRE HYDRANT TO BE REMOVED, including removal and disposal of the existing fire hydrant and auxiliary valve and box from the existing water main, sealing of abandoned connection fitting, excavation and disposal of waste materials, delivery of appurtenant items to the Village of La Granges Public Works garage and all other materials and work necessary to complete this item.

17. VALVE VAULTS TO BE REMOVED

This work shall be in accordance with Section 602 of the Standard Specification, the Standard Specification for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified herein.

At locations noted on the plans or as otherwise indicated by the Engineer, existing water valve vaults shall be removed following the abandonment of existing valves and water main segments denoted on the plans. Items deemed salvageable by the La Grange Department of Public Works or their designated representative shall be delivered to the Village of Lagrange's Public Works garage.

Payment shall be made at the Contract unit price per Each for VALVE VAULT TO BE REMOVED, including the excavation, removal and disposal of all component parts, delivery of appurtenant items to the Village of La Grange Department of Public Works garage and all other materials and work necessary to complete the removal consistent with the Standard Specifications.

18. VALVE BOXES TO BE REMOVED

This work shall be in accordance with Section 602 of the Standard Specification, the Standard Specification for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified herein.

At locations noted on the plans or as otherwise indicated by the Engineer, existing water valve boxes shall be removed following the abandonment of existing valves and water main segments denoted on the plans. Items deemed salvageable by the La Grange Department of Public Works or their designated representative shall be delivered to the Village of Lagrange's Public Works garage.

Payment shall be made at the Contract unit price per Each for VALVE BOXES TO BE REMOVED, including the excavation, removal and disposal of all component parts, delivery of appurtenant items to the Village of La Grange Department of Public Works garage and all other materials and work necessary to complete the removal consistent with the Standard Specifications

19. VALVE VAULTS TO BE ABANDONED

This work shall be in accordance with the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified herein.

At locations noted on the plans or as otherwise indicated by the Engineer, existing water valve vaults shall be abandoned following the abandonment of existing valves and water main segments denoted on the plans. Items deemed salvageable by the La Grange Department of Public Works or their designated representative shall be delivered to the Village of Lagrange's Public Works garage.

Payment shall be made at the Contract unit price per Each for VALVE VAULT TO BE ABANDONED, including the excavation, removal and disposal of all component parts, delivery of appurtenant items to the Village of La Grange Department of Public Works garage and all other materials and work necessary to complete the removal consistent with the Standard Specifications

20. DUCTILE IRON FITTINGS AND ACCESSORIES

This work shall be in accordance with section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

All fittings and accessories used for water main installation shall be manufactured as specified and in accordance to the special provision for DUCTILE IRON WATERMAIN. All plan specified fittings, and any fittings not identified specifically on the plan, but found to be necessary to be installed due to unanticipated underground obstructions, or to adjust for elevation differentials, shall be provided.

Reaction or thrust blocking shall be provided at each hydrant, valve, bend, tee, or other fittings where changes in pipe diameters or direction occur. In addition, ductile cast iron joint restraints or retainer glands shall be installed. The retainer glands shall be equal to the *Megalug* series 1100 restraints meeting Village of La Grange standards. In areas where soil support for thrust blocking or restraints is deemed inadequate or projected thrust forces too great, anchorage may also be required which joins the fittings to the water main with tie rods and clamps. Reaction or thrust blocking shall be included in the cost of the contract pay item for DUCTILE IREON FITTINGS AND ACCESSORIES.

This work will be measured by weight per fitting and accessories according to the published manufactures specifications of weight per fitting and accessories.

Payment shall be made at the Contract unit price, per Pound for DUCTILE IRON FITTINGS AND ACCESSORIES, including all accessories such as bolts, nuts, glands and gaskets. The Contractor shall be required to provide a list of items used and provide invoiced weight documentation to substantiate quantities for review and approval by the Engineer.

21. SHUT-DOWN CONNECTION

This work shall be in accordance with section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

In those locations indicated on the plans the connection of a new water main to an existing water main or a revision of an existing water main interconnection will require the interruption of water service for the duration of the connection work. At each location of the prescribed work, the Contractor shall shut-down the applicable sections of the water main under the supervision of the Village of La Grange Department of Public Works. The existing sections of water main scheduled to be abandoned through the new construction and interconnections shall be capped or plugged. Such work shall be considered to be included in the shut down work operation.

For each shut-down location, the Contractor shall have made all preparations necessary to complete the connection in the minimum amount of time; shut-down connections shall be planned to not exceed three hours in duration. The shut-down operation will require the Contractor to expose the point of connection, collect all fittings required, measure, cut and assemble pipe components, and have the necessary chlorine solution prepared for pipe coating prior to the closure and cutting of the existing water main. Work shall be staged to occur following the isolation of the water main work segment from the balance of the distribution system. The Contractor, in cooperation with the Village, shall notify all water users affected by the system shut down at least twenty-four hours prior to the planned construction. The Contractor shall observe all regulations concerning system shut down connections adopted by the IEPA.

Payment shall be made at the Contract unit price per Each for SHUT-DOWN CONNECTION, including public notification, municipal coordination, exploratory excavations and work site preparations, distribution zone isolation, valve closures, water system depressurization, pipe cutting, dewatering, disinfection, pipe connections, and all other work or materials required to complete the connections to the existing water distribution system described in the plans.

22. WATER SERVICE LINE

This work shall be in accordance with Section 562 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

At locations indicated on the plans or as specified by the Engineer, copper water services of the size specified shall be installed. Each service installed shall be fabricated of seamless copper tubing conforming to ASTM B-88M, Type K, soft-temper, designated for underground service. The tubing shall be marked with the manufacturer's name or trademark, and a mark indicating the type and grade of material. The outside diameter and minimum weight per foot of the pipe shall conform to that listed in ASTM B-251, Table II. The service tubing is to be installed in continuous lengths between the corporation tap and the water service box location. The water service tube is to be installed by trench methods. Directional drilling or auger methods will be permitted in place of trenching methods without extra compensation, where approved by the Engineer.

Pipe bedding and initial backfill for the water service shall be in accordance with the water main trench detail in the plans and shall be included in the cost of the water service.

This work will be measured for payment in place in feet. The length measured will include stops, fittings and valves

Payment shall be made at the Contract unit price per Foot for WATER SERVICE LINE 1" and WATER SERVICE LINE 2", including excavation, backfilling, disposal of waste excavated material, bedding, blocking, and all other materials and work necessary to complete this item as specified.

23. WATER SERVICE CONNECTION

This work shall be in accordance with Section 561 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, the Village of La Grange standards, as detailed on the plans and as modified here in.

At locations where old water services are to be transferred to the new water main, new tapped water service connections are to be made and new curb boxes and curb stop valves are to be installed. The existing curb stop valves scheduled for abandonment are to be removed to facilitate proper connections between the new and existing lines. All fittings and connections to be made with flare type fittings. Compensation for new copper water service tubing length installed shall be paid under the COPPER WATER SERVICE item.

Water service valve boxes required to be replaced as part of this project shall conform to Village of La Grange standard, Tyler Series 65-94E or approved equal. The Contractor shall confirm acceptance of the water service box with the Village before installation. Payment for water service boxes shall be included in the cost of the WATER SERVICE CONNECTION contract item.

Payment for the service connection shall be made at the Contract unit price per Each for WATER SERVICE CONNECTION 1" or WATER SERVICE CONNECTION 2" , including excavation, disposal of excavated material, tapping of the water main, installation of the brass corporation stop assembly,

connection to the new or existing service lines where indicated, installation of new curb box and curb stop valve, removal of any existing curb stop and box, miscellaneous fittings and unions, backfill, blocking, and all other work and material necessary to complete the service connection.

24. PRESSURE TEST AND DISINFECTION

After each section of water main has been installed as specified on the plan, it shall be subject to a hydrostatic pressure of 150 psi in the presence of the Engineer to ascertain the integrity of all pipe, fittings, valves, and their joints under reasonable stress conditions. The section of water main to be tested shall be isolated and slowly filled with water and subjected to the test pressure by means of a pump connected to the pipe in a manner satisfactory to the Engineer. The pump interconnection and all necessary apparatus, including gauges, shall be furnished by the Contractor. Before the test pressure is applied all trapped air shall be expelled from the pipe. Auxiliary taps into the water main shall be made at points of highest elevation if necessary to completely vacate the pipe test section. Once the test pressure has been attained, and pumping apparatus turned off, the test shall begin, extending for a duration of at least one (1) hour. During the period of the test the measured pressure shall not decrease by more than ten (10) psi in the first fifteen minutes and shall remain relatively stable for the next forty-five minutes. In no case shall the test pressure decrease by more than fifteen (15) psi over the course of the one hour test period. If the pressure during the test has decreased by more than ten (10) psi, or if otherwise directed by the Engineer, the water main shall be subjected to a leakage test to determine the amount of water lost. The procedure for the leakage test requires that the Contractor re-pressurize the test section to the initial test pressure and the volume of water drawn by the pump system measured to re-establish the 150 psi test pressure. This volume shall be compared to the allowable leakage volume calculated by the following relation:

$$L = \frac{ND(P)^2}{7400}$$, Where:

L is the allowable leakage in gallons per hour
N is the number of joints in the test section.
D is the nominal internal pipe diameter in inches.
P is the average test pressure during test in psi.

If it is judged necessary by the Engineer, the water main test section shall again be pressurized to the 150 psi test pressure and evaluated for an additional one hour period. After the second period has ended, the water loss shall again be measured to determine compliance with the allowable leakage parameters. If the test results do not indicate compliance with the criteria, the water main shall be considered unacceptable. The section shall be subject to re-evaluation once the Contractor has identified and corrected the cause for the test failure.

Once the newly installed water main section has been found to comply with the pressure testing requirements, it shall be thoroughly flushed to remove any soil, debris, or other material that may have lodged in the pipe during construction. If a fire hydrant is not available for flushing, then a tap shall be provided large enough to develop a velocity of at least two and one-half (2.5) feet per second in the water main. A standard fire hydrant hose port under normal pressures will provide this velocity in pipe sections up to and including twelve inches in diameter.

After flushing, the water main shall be chlorinated so that a chlorine residual of not less than twenty-five milligrams per liter (25 mg/l) remains in the water after standing twenty-four hours in the new pipe. The chlorination shall involve the injection of chlorine gas into the water main through an interconnection with a regulating device that provides effective diffusion of the gas into the water.

Chlorine tablets or mixed solutions shall not be acceptable except for treating isolated stubs, fittings, and system interconnections during construction.

Following chlorination, all treated water shall be thoroughly flushed from the pipe at its extremity until the replacement water throughout its length shows a chlorine residual equal to that carried by the supply water. Water samples shall then be collected on two successive days from the treated piping system to show satisfactory bacteriological results. The bacteriological analysis must be performed by a laboratory approved by the Illinois Environmental Protection Agency (IEPA). A copy of the results must be provided to the Engineer and The Village of La Grange to obtain acceptance of the test section. Upon submission of an acceptable test certification and approval of the Engineer, the tested water main may be placed in to service.

Payment for testing and disinfection work shall be made at the Contract unit price per Lump Sum, for PRESSURE TESTING AND DISINFECTION, including pipe flushing, tapping, pressure testing, equipment, chemical application, laboratory testing, and all other work, equipment, and material necessary to complete this item in accordance with the Standard Specifications.

25. STORM SEWER CONNECTION, SPECIAL

This work shall be in accordance with Section 550 and 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

Connection to the existing 60" RCP storm sewer shall be made as detailed on the plans.

Payment will be made at the contract unit price per Each for STORM SEWER CONNECTION, SPECIAL, including all labor, materials and equipment required to make the connection as specified and detailed in the plans.

26. PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER

This work shall be in accordance with Section 550 and 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

When connections are to be made to existing sewers of similar or dissimilar material or composition, non-shear type flexible type couplings, Fernco, Band-Seal or equal shall be used.

Payment will be made at the contract unit price per Each for PROPOSED STORM SEWER CONNECTION TO EXISTING STORM SEWER, including all labor, materials and equipment required.

27. PRECAST "T" MANHOLE FOR 60" DIAMETER STORM SEWER, TYPE 1 FRAME, CLOSED LID

This work shall be in accordance with Section 550 and 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

At locations specified on the plans reinforced concrete "T" type manhole structure shall be installed on reinforced concrete pipe tee fittings installed as part of the sixty inch diameter storm sewer. The precast concrete manhole components shall be fabricated in accordance with ASTM C76 and be installed in conformance with Section 602 of the Standard Specifications except that cast iron frame and closed lid, steps, grade rings, and appurtenant items as detailed on the plans.

The cost for the manhole tee base shall be paid as a fitting and included as part of the cost for the measured length of the 60" mainline sewer pipe.

Payment will be made at the contract unit price per Each for PRECAST "T" MANHOLE FOR 60" DIAMETER STORM SEWER, TYPE 1 FRAME, CLOSED LID, including all labor, materials and equipment required.

28. DROP CONNECTION

This work shall be in accordance with Section 550 and 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

The drop connection shall be fabricated on site as detailed on the plans. The holes in the manhole "T" section and in the barrel section shall be either precast as part of the structure or core drilled with the proper sized coring machine. The pipes to make the drop connection shall be cement lined class 52 ductile iron pipe conforming to ANSI A-21.51 and ANSI A-21.11. All connections between the pipe and structure shall be resilient water tight connections conforming to ASTM C923. The entire assembly of 16" and 12" ductile iron pipes to make the connection between the Precast "T" Manhole and the combination overflow manhole structure shall be included in the cost or the Drop Connection.

Payment shall be made at the contract unit price per Each for DROP CONNECTION, including all labor, materials and equipment required to install the manhole and drop connection in the location indicated, as detailed on the plans, according to MWRDGC requirements and as specified herein.

29. DRAINAGE RESTRICTOR

This work shall be in accordance with Section 602 of the Standard Specifications, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

Where indicated on the plans, a ¼" steel restrictor plate shall be installed as detailed on the plans.

Payment will be made at the contract unit price per Each for DRAINAGE RESTRICTOR, including all labor, materials and equipment required to install the restrictor plate in the locations specified and as detailed on the plans.

30. SANITARY SEWER CONNECTION

This work shall be in accordance with Section 550 and 602 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

When connections are to Manholes, connections shall be resilient water tight connections conforming to ASTM C923. When connections are to be made to existing sewers of similar or dissimilar material or composition, non-shear type flexible type couplings, Fernco, Band-Seal or equal shall be used.

Payment will be made at the contract unit price per Each for SANITARY SEWER CONNECTION, including all labor, materials and equipment required.

31. CATCH BASINS, TYPE A, SPECIAL

This work shall be in accordance with Section 550, 602 and 604 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

All catch basins shall have a PVC vapor trap installed within the catch basin structure on the outlet pipe as detailed on the plans. The PVC vapor trap shall be included in the cost of the Catch Basin. Since sewers in the project area function as combination storm and sanitary sewers, vapor traps are required to limit escape of sewer vapors through the drainage structure connections. The PVC vapor traps specified for this project shall be a 90 degree SDR 26 PVC elbow fitting with gasketed joints conforming to ASTM D-3212 and ASTM F-477. The trap shall be properly installed on the spigot end of the PVC pipe extending into the catch basin

Payment shall be made at the Contract unit price per Each for CATCH BASINS, TYPE A, SPECIAL, of the type, diameter and with the type of frame and grate or lid specified, including all labor, materials, and equipment required.

32. TRENCH CONSTRUCTION

The trench construction shall conform to the requirements of Section 550 of the Standard Specifications. Trench consolidation method 1 shall be employed for all trenches where trench backfill material CA 6 is employed, unless otherwise approved by the Engineer. The limits of the trench width shall be controlled to limit latent settlement and damage to adjacent structures. The maximum clear width of the trench for this project shall typically be 18 inches greater than the outside diameter of the conduit or pipe being installed. Pay limits for trench backfill shall reflect the maximum allowable trench width. Pavement removal required for trench construction shall include saw cutting necessary to control the excavation limits and prevent damage to adjacent pavement surfaces. Payment for pavement removal required for trench construction shall be made at the Contract unit price per Square Yard for PAVEMENT REMOVAL, including all labor, materials, and equipment required.

In those locations where the new sewer construction follows the alignment of an existing sewer the removal of the sewer shall be considered as part of the trench operations and no special compensation shall be provided for the removal and disposal of the removed sewer material. In those locations where the new sewer construction follows the alignment of an existing active sewer, the existing sewer flow shall be accommodated during the construction by implementing standard bypass pumping or trench fluming methods. Where temporary sewer plugs are installed to limit flow through a trenching operation, the obstructed flow shall be periodically monitored to avoid back-up conditions that might impact upstream drainage areas. The sewer operation shall be reestablished by the end of each work day. Also since most segments of the existing sewer system function as a combination sewer, rainfall conditions shall be considered in planning construction operations.

Where necessary to prevent subsidence, trench excavations shall be adequately supported. The Contractor shall be responsible for designing, providing, installing, and maintaining any trench boxes, sheeting, or bracing which may be necessary to support the sides of the excavation and trenches. When such supports are removed, it shall be done in a manner as to not disturb or damage any adjacent structures. As backfill is placed and supports are withdrawn, any void left in the process shall be filled and compacted before withdrawing the next increment.

The cost associated with trench construction, trench boxes, sheeting, or bracing shall be included in the cost of the contract item being constructed and/or being installed.

33. STORM SEWERS

This work shall be in accordance with Section 550 of the Standard Specification, the Standard Specifications for Water and Sewer Main Construction in Illinois, MWRDGC requirements, Village of La Grange standards, as detailed on the plans and as modified here in.

The Storm Sewer material shall be in accordance with article 550.02 except that, in accordance with municipal requirements, all sewer pipes shall be constructed with either reinforced concrete or polyvinyl chloride pipe material fabricated with rubber gasket joints. No other material will be accepted. All reinforced concrete pipes shall be fabricated in accordance with ASTM C76 of the wall type specified for the installed depth, with joints conforming to ASTM C443. All polyvinyl chloride pipes shall be fabricated in accordance with ASTM D2241, with a wall thickness providing a minimum size dimension ratio (SDR) of 26, with joints conforming to ASTM C3139, and with elastomeric gaskets conforming to ASTM F-477.

Sewer pipe bedding material shall consist of crushed limestone material conforming to gradation CA-11 with a 1 inch to ¼ inch aggregate size range. The bedding material shall be installed with a minimum thickness equal to one quarter of the outside diameter of the sewer pipe, but not less than 4 inches, or more than 8 inches. The bedding material shall be installed to an elevation of 12 inches for flexible pipes and 4 inches for rigid pipes above the top of the sewer pipe, so that the pipe is fully encased. The bedding design shall be class B for conduits in trench. All bedding material, initial backfill and its placement shall be included in the cost of the pipe/conduit being installed. Installation of pipe bedding and final backfill shall be provided as detailed on the plans and as modified in the special provisions.

At the location specified on the plans, a reinforced concrete pipe bulkhead shall be installed to terminate the 60" pipe segment and allow for future extension. Where connecting to the existing 60" sewer, remove the precast concrete bulkhead and save it to be re-installed at the proposed upstream end of the pipe as indicated on the plans. The bulkhead is to be stored and protected from damage. If the bulkhead is damaged and cannot be re-used a new precast concrete bulkhead shall be fabricated, at the contractors cost, to be inserted into the bell section of the pipe being terminated. The bulkhead shall conform to the fabrication requirements of ASTM C76. The cost to remove, store and reinstall the 60" sewer pipe bulkhead shall be included in the cost of the 60" storm sewer.

Sewer pipe length shall be measured through fittings and the cost of fittings shall be included in the cost of the measured pipe length. Storm Sewers will be measured in place in feet in accordance with section 550.09 of the Standard Specifications.

Payment for storm sewers shall be made at the Contract unit price per Foot for STORM SEWERS, of the class, type, and diameter specified, and of the kind of material when specified, including all labor, materials, and equipment required to install the pipe along the lines and at the gradients indicated on the plan.

34. SEWER PIPE FITTINGS

All wye, tee, or bend fittings required for completing the installation of the specified sewer main or branch segments as shown on the plans, or otherwise indicated by the Engineer, shall be manufactured in accordance with the main line pipe specifications when the main line sewer and branch line sewer are of the same material. When a branch line sewer tees into the mainline sewer of a dissimilar material, a compression fit connection shall be used.

All reinforced concrete pipe fittings shall be fabricated in accordance with ASTM C76 of the wall type specified for the installed depth, with joints conforming to ASTM C443. All polyvinyl chloride pipe fittings shall be fabricated in accordance with ASTM D2241, with a wall thickness providing a minimum size dimension ratio (SDR) of 26, with joints conforming to ASTM C3139, and with elastomeric gaskets conforming to ASTM F-477.

Compression fit connections to the mainline sewer from branch sewers of a dissimilar material shall be accomplished using INSERTA TEE® as manufactured by Inserta Fittings Co. or approved equal. The connection shall be specifically designed for connection to the main line sewer being installed and meet the same specifications as the branch line sewer. Installation shall be in accordance to the procedures and equipment as referenced in the manufacturer's written installation instructions and specifications.

The cost for sewer pipe fittings for sewer pipes of the same material shall be included in the cost of the main line sewer pipe item. Compression Fit Connections shall be included in the cost of the branch line sewer pipe item.

35. SANITARY SEWER SERVICE

Active and valid sewer service laterals encountered during the construction of sewer, water main,

or other underground utilities, shall be replaced and reconnected as part of the construction. Where specified the replacement length shall extend to the right-of-way limits or as otherwise indicated by the Engineer to ensure structural integrity beneath the new pavement surface. Where lateral replacement occurs as a result of a utility crossing, the replacement shall extend to one foot beyond each side of the crossing utility trench line, unless otherwise specified by the Engineer. The sewer pipe shall be manufactured of polyvinyl chloride (PVC) in conformance with Section 1040.10 of the Standard Specifications. The pipe shall be pressure rated with a pipe cylinder conforming to ASTM D-2241, and have a wall thickness providing a minimum standard dimension ratio (SDR) of 26. The pipe joints shall conform to ASTM D-3139, with elastomeric gaskets conforming to ASTM F-477. All work required restoring each lateral connection, including the installation of the service fittings and flexible couplings shall be included in the cost of the sewer service pay item.

Installation of the pipe shall be in accordance with and as detailed on the plans and the sewer trench detail. Pipe bedding and the initial backfill of the pipe shall be included in the cost of the sewer service pay item.

Payment for sewer service laterals shall be made at the Contract unit price per Foot of installed length for SANITARY SEWER SERVICE, 6" or SANITARY SEWER SERVICE 8" including all labor, materials, and equipment required to install as indicated on the plan in accordance with the Standard Specifications.

36. FLEXIBLE COUPLINGS

The flexible pipe couplings used on this project for repairing sewer segments shall be manufactured with a special elastomeric polyvinyl chloride material formulated for sewer applications. The couplings shall be provided with stainless steel band clamps, designed to securely attach the coupling to the pipe segments, providing a positive seal against water infiltration. The couplings shall also be provided with a stainless steel reinforcing band, or shear ring, to help maintain pipe alignment and prevent joint movement. The shear ring shall be fully compatible with the coupling assembly being installed. The coupling assembly shall conform to applicable portions of ASTM C443, C425, C564, D1869, and C1173. All flexible couplings shall be included in the cost of the SANITARY SEWER SERVICE contract item or sewer pipe material contract item when connecting to existing sewers.

37. DETECTABLE WARNINGS, SPECIAL

This work shall be completed in accordance with section 424 of the Standard Specifications, as modified in the plans and as detailed on the plans and in accordance with the Village of La Grange standards.

Detectable Warnings will be measured for payment in place and the area computed in square feet.

Detectable Warnings will be paid for at the contract unit price per Square Foot for DETECTABLE WARNINGS, of the size specified on the plans, including all labor, materials, and equipment required to install as indicated on the plans and in accordance with the details on the plans.

38. PERMANENT SURVEY MARKER

At locations indicated on the plans or as indicated by the Engineer, Type II precast concrete permanent survey markers shall be installed in accordance with Section 667 of the IDOT Standard Specifications. A licensed land surveyor shall be retained by the Contractor to conduct measurements and inscribe the marker surface tablet indicating the elevation and the assigned reference number as detailed on the plans. The location of each marker shall be established on the state plane coordinate system on the IL East NAD83 datum. The elevation shall be based upon the NGVD29 datum. The markers shall be referenced to other existing markers. Reference coordinate sheets detailing the location of each reference marker will be made available to the land surveyor by the Engineer. The survey shall utilize third order procedures to obtain close to second order results. The licensed land surveyor retained by the Contractor shall establish each marker location relative to nearest property corners and right-of-way control points indicated on the plans and determine elevation and coordinate of each tablet. As part of the completed work a log sheet for each installed marker shall be provided to the Engineer to document the marker coordinates and location. The Owner will purchase and provide the brass marker castings to the Contractor for use in completing the marker installation. The actual cost for the brass marker castings, currently approximating $15 per casting, will be deducted from the contract cost following installation. Payment shall be made at the Contract unit price per Each for PERMANENT SURVEY MARKER, including the furnishing, installing, survey control, tablet marking, and all other work required.

39. GULFBOX TO BE ADJUSTED

At various locations defined on the plans or as indicated by the Engineer, existing composite concrete gulfboxes shall be adjusted to meet finished grades. The boxes function as part of the Village of La Grange street light system providing access to lighting cable. Gulf boxes damaged during construction shall be replaced with materials acceptable to the Engineer without additional compensation.

Payment shall be made at the Contract unit price per Each for GULFBOX TO BE ADJUSTED, including excavation, disposal of waste materials, resetting of box components and all other materials and work necessary to complete the adjustment consistent with the Standard Specifications and Village of La Grange requirements.

40. REMOVE AND RESET EXISTING STREET LIGHTS

At the location noted on the plans, existing street light poles and luminaries shall be relocated to avoid conflict with the proposed improvements. The relocation shall include the adjustment or replacement of cable and unit duct segments and the replacement of ground rods and ground connections. The light poles shall be tested and restored to operation prior to acceptance by the Engineer. Street light system components damaged during construction shall be replaced with materials acceptable to the Engineer without additional compensation.

Payment shall be made at the Contract unit price per Each for REMOVE AND RESET EXISTING STREET LIGHTS including municipal coordination, field investigations, excavation, pole and luminaire disassembly, cable removal, pole and luminaire relocation, adjustment and replacement of electrical cable and polyethylene raceway, ground rods and wire, pole wire, fuses, backfill and all other materials and work necessary to complete the relocation consistent with the Standard

Specifications and Village of La Grange requirements.

41. WATERING

This work shall be in accordance with sections 201 and 252 of the standard specifications and as modified herein.

All plant materials installed shall be the responsibility of the Contractor until written acceptance is issued by the Engineer. During the period prior to acceptance the Contractor shall water and maintain the plantings as required to ensure that they become established. Except for supplemental watering, all watering shall be included in the cost of the related planting items. The use of water and fire hydrants for watering or other construction purposes shall be in accordance with the special provision for WATER USAGE DURING CONSTRUCTION of this contract.

Supplemental watering will be measured for payment and paid for in accordance with section 252 of the Standard Specification at the contract unit price per Unit for SUPPLEMENTAL WATERING.

42. MULCH PLACEMENT, SPECIAL

Landscape mulch consisting of shredded and chipped wood bark, shall be applied over the planting bed surfaces, around shrubs, and around each tree base (See "TREE MULCH DONUT DETAIL). Mulch shall generally be spread with an average thickness of four inches respective to the plant material and surface conditions. The contractor shall be prepared to obtain the landscape mulch material from the Village of La Grange Department of Public Works stock pile located north of the project site near the intersection of Tilden Avenue and the BNSFRR, and transport and place as required by work site conditions. The Department of Public Works will assist in the loading and transport of the mulch to the work site to the extent feasible.

Payment for wood chip mulch placement shall be at the Contract unit price per Each for MULCH PLACEMENT, SPECIAL including loading and transport to the work site from stock piles, placement to depths required, clean-up, and all work, equipment, or materials required.

43. SODDING, SALT TOLERANT, SPECIAL

All sod material and placement shall conform to the requirements of Section 252 and Section 781 of the Standard Specifications, or as otherwise indicated by the Engineer, except that, in accordance with municipal requirements.

The sod material provided shall be Kentucky Blue or Merion Blue species cut from native stock that is compatible with the project locality. The sod provided shall be free of noxious weeds and other objectionable plants, and shall not contain substances injurious to growth. The Contractor shall provide the Engineer inspection certification with each shipment delivered to the project site. Surface grading, shaping or other preparation required to reestablish the surface contour and other topography existing prior to construction, shall be included in the cost of the sodding item. In preparing for sod placement, topsoil shall be installed as required to provide an adequate growing medium and to adjust for final plan grade elevations. Following topsoil placement, fertilizer with a balanced nitrogen-phosphorus-potassium mixture applied at a ratio of 60-60-60 pounds/acre and

blended with the topsoil surface. A general application herbicide shall also be applied to inhibit weed growth and promote sod growth. Herbicide application shall be included in the cost of sodding. The topsoil, and subsequent sod installation, shall be rolled and compacted to reduce settlement and encourage root knitting. Sod placement shall not occur during periods when weather conditions might damage sod or prevent a satisfactory installation. At the time of placement, the soil sub-grade must be in a workable condition, with moderate moisture levels, and temperatures ranging between forty and eighty degrees Fahrenheit (40°F-80°F). The Contractor shall be responsible for watering the newly placed sod until adequately established, including supplemental watering, unless otherwise indicated.

Sodding will be measured for payment in place and the area computed in square yards in accordance with Section 252.12 of the Standard Specification.

Payment for sodding shall be at the contract unit price per SQUARE YARD for SODDING, SALT TOLERANT, SPECIAL including all soil preparation, herbicide, surface grading, sod placement, sod trimming, sod rolling, watering, and all other work and materials required.

44. SHOP DRAWINGS AND SUBMITTALS

Before any work is started the Contractor shall obtain written approval from the Engineer for special materials or products selected for use in the construction of the improvement. Prior to the ordering and delivery of materials, the Contractor shall furnish names, addresses, and telephone numbers of vendors along with three (3) copies of schematics, drawings, specifications, and literature describing the specific materials to be used. In those instances where color and texture are critical, such as in the selection of painted surfaces, the Contractor shall provide samples necessary to display the material that is representative of that being delivered and installed. Subject to approval of each submittal by the Engineer, the materials specified shall then be ordered and installed.

45. TEMPERATURE CONTROL FOR CONCRETE PLACEMENT (DISTRICT 1)

Effective: May 1, 2007

Delete the second and third sentences of the second paragraph of Article 1020.14(a) of the Standard Specifications.

46. BITUMINOUS PRIME COAT FOR HOT-MIX ASPHALT PAVEMENT (FULL DEPTH) (DISTRICT 1)

Effective: May 1, 2007

Revise Article 407.06(b) of the Standard Specifications to read:

"A bituminous prime coat shall be applied between each lift of HMA according to Article 406.05(b) at a rate of 0.02 to 0.05 gal/sq yd (0.1 to 0.2 L/sq m), the exact rate to be determined by the Engineer."

Revise the second paragraph of Article 407.12 of the Standard Specifications to read:

"Prime Coat will be paid for at the contract unit price per gallon (liter) or per ton (metric ton)

for BITUMINOUS MATERIALS (PRIME COAT)."

FINE AGGREGATE FOR HOT- MIX ASPHALT (HMA) (D-1)
Effective: May 1, 2007
Revised: January 15, 2010

Add the following to the gradation tables of Article 1003.01(c) of the Standard Specifications:

FINE AGGREGATE GRADATIONS					
Grad No.	Sieve Size and Percent Passing				
	3/8	No. 4	No. 8	No. 16	No. 200
FA 22	100	6/	6/	8±8	2±2

FINE AGGREGATE GRADATIONS (metric)					
	Sieve Size and Percent Passing				
Grad No.	9.5 mm	4.75 mm	2.36 mm	1.16 mm	75 µm
FA 22	100	6/	6/	8±8	2±2

6/ For the fine aggregate gradations FA 22, the aggregate producer shall set the midpoint percent passing, and the Department will apply a range of ± ten percent. The midpoint shall not be changed without Department approval.

Revise Article 1003.03(a) of the Standard Specifications to read:

"(a) Description. Fine aggregate for HMA shall consist of sand, stone sand, chats, slag sand, or steel slag sand. For gradation FA 22, uncrushed material will not be permitted."

Revise Article 1003.03 (c) of the Standard Specifications to read:

"(c) Gradation. The fine aggregate gradation for all HMA shall be FA1, FA 2, FA 20, FA 21 or FA 22. When Reclaimed Asphalt Pavement (RAP) is incorporated in the HMA design, the use of FA 21 Gradation will not be permitted.

Gradation FA 1, FA 2, or FA 3 shall be used when required for prime coat aggregate application for HMA."

48. MAINTENANCE OF ROADWAYS (DISTRICT 1)

Effective: September 30, 1985 Revised: November 1, 1996

Beginning on the date that work begins on this project, the Contractor shall assume responsibility for normal maintenance of all existing roadways within the limits of the improvement. This normal maintenance shall include all repair work deemed necessary by the Engineer, but shall not include snow removal operations. Traffic control and protection for maintenance of roadways will be provided by the Contractor as required by the Engineer.

If items of work have not been provided in the contract, or otherwise specified for payment, such items, including the accompanying traffic control and protection required by the Engineer, will be paid for in accordance with Article 109.04 of the Standard Specifications.

49. TRAFFIC CONTROL PLAN (DISTRICT 1)
Effective: September 30, 1985
Revised: January 1, 2007

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

The Contractor shall contact the District One Bureau of Traffic at least 72 hours in advance of beginning work.

STANDARDS:
701501-05 – "Urban Lane Closure, 2L, 2W, Undivided"
701801-04 – "Lane Closure, Multilane, 1W or 2W Crosswalk or Sidewalk Closure"
701901-01 – "Traffic Control Devices"

DETAILS:
(TC-10) Traffic Control and Protection for Side Roads, Intersections, and Driveways
(TC-11) Raised Reflective Pavement Markers (Snow Plow Resistant)
(TC-13) District One Typical Pavement Markings
(TC-14) Traffic Control and Protection at Turn Bays (To Remain Open To Traffic)
(TC-22) Arterial Road Information Signs

A detour and traffic control plan has been created for this contract. It can be found on the sheets titled "Maintenance of Traffic" and "Construction Phasing & Local Traffic Pattern".

SPECIAL PROVISIONS:
Refer to the Special Provisions for MAINTENANCE OF ROADWAYS, WORK ZONE TRAFFIC CONTROL, FLAGGERS IN WORK ZONES, PERSONAL PROTECTIVE EQUIPMENT and REFLECTIVE SHEETING ON CHANNELIZING DEVICES.

METHOD OF MEASUREMENT:
This work will be measured for payment in accordance with section 701.19 of the Standard Specifications.

BASIS OF PAYMENT:
This work will be paid for at the contract Lump Sum price for TRAFFIC CONTROL AND PROTECTION, STANDARD 701501; TRAFFIC CONTROL AND PROTECTION, STANDARD 701801; TRAFFIC CONTROL AND PROTECTION (DETOUR 1).

This work includes all fabrication, preparation, installation, maintenance, maintenance of roadways, temporary information signing, personal protective equipment, reflective

sheeting on channelizing devices, relocation, and removal of all informational signs, regulatory signs, signals, pavement markings, traffic cones, barricades, warning lights, and all other measures and devices which are used for the purpose of regulating, warning, or directing traffic in the approach to the project area and along the detour route during the construction or maintenance of the improvement.

50. USE OF RAP (District 1)
Effective: January 1, 2007
Revised: July 1, 2009

In Article 1030.02(g) of the Standard Specifications, delete the last sentence of the first paragraph in (Note 2).

Revise Section 1031 of the Standard Specifications to read:

"SECTION 1031. RECLAIMED ASPHALT PAVEMENT

1031.01 Description. Reclaimed asphalt pavement (RAP) results from the cold milling or crushing of an existing hot-mix asphalt (HMA) pavement. The Contractor shall supply written documentation that the RAP originated from routes or airfields under federal, state, or local agency jurisdiction. The contractor can also request that a processed pile be tested by the Department to determine the aggregate quality as described in Article 1031.04, herein.

1031.02 Stockpiles. The Contractor shall construct individual, sealed RAP stockpiles meeting one of the following definitions. No additional RAP shall be added to the pile after the pile has been sealed. Stockpiles shall be sufficiently separated to prevent intermingling at the base. Stockpiles shall be identified by signs indicating the type and size as listed below (i.e. "Homogenous Surface").

Prior to milling or removal of an HMA pavement, the Contractor may request the District to provide verification of the existing mix composition to clarify appropriate stockpile.

(a) Homogeneous. Homogeneous RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures and represent: 1) the same aggregate quality, but shall be at least C quality; 2) the same type of crushed aggregate (either crushed natural aggregate, ACBF slag, or steel slag); 3) similar gradation; and 4) similar asphalt binder content. If approved by the Engineer, combined single pass surface/binder millings may be considered "homogenous" with a quality rating dictated by the lowest coarse aggregate quality present in the mixture.

(b) Conglomerate 5/8. Conglomerate 5/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least C quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 5/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 5/8 in. (16 mm) or smaller screen.

(c) Conglomerate 3/8. Conglomerate 3/8 RAP stockpiles shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate 3/8 RAP shall be processed prior to testing by crushing to where all RAP shall pass the 3/8 in (9.5 mm) or smaller screen.

(d) Conglomerate Variable Size. Conglomerate variable size RAP shall consist of RAP from Class I, Superpave (High ESAL), HMA (High ESAL), or equivalent mixtures. The coarse aggregate in this RAP shall be crushed aggregate and may represent more than one aggregate type and/or quality but shall be at least B quality. This RAP may have an inconsistent gradation and/or asphalt binder content prior to processing. All conglomerate variable size RAP shall be processed prior to testing by crushing and screening to where all RAP is separated into various sizes. All the conglomerate variable size RAP shall pass the 3/4 in. (19 mm) screen and shall be a minimum of two sizes.

(e) Conglomerate "D" Quality (DQ). Conglomerate DQ RAP stockpiles shall consist of RAP from Class I, Superpave (High or Low ESAL), HMA (High or Low Esal), or equivalent mixtures. The coarse aggregate in this RAP may be crushed or round but shall be at least D quality. This RAP may have an in consistent gradation and/or asphalt binder content.

(f) Non-Quality. RAP stockpiles that do not meet the requirements of the stockpile categories listed above shall be classified as "Non-Quality".

RAP containing contaminants, such as earth, brick, sand, concrete, sheet asphalt, bituminous surface treatment (i.e. chip seal), pavement fabric, joint sealants, etc., will be unacceptable unless the contaminants are removed to the satisfaction of the Engineer. Sheet asphalt shall be stockpiled separately.

1031.03 Testing. When used in HMA, the RAP shall be sampled and tested either during or after stockpiling.

For testing during stockpiling, washed extraction samples shall be run at the minimum frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

For testing after stockpiling, the Contractor shall submit a plan for approval to the District proposing a satisfactory method of sampling and testing the RAP pile either in-situ or by restockpiling. The sampling plan shall meet the minimum frequency required above and detail the procedure used to obtain representative samples throughout the pile for testing.

Before extraction, each field sample shall be split to obtain two samples of test sample size. One of the two test samples from the final split shall be labeled and stored for Department use. The Contractor shall extract the other test sample according to Department procedure. The Engineer

reserves the right to test any sample (split or Department-taken) to verify Contractor test results.

(a) Testing Conglomerate 3/8 and Conglomerate Variable Size. In addition to the requirements above, conglomerate 3/8 and variable size RAP shall be tested for maximum theoretical specific gravity (G_{mm}) at a frequency of one sample per 500 tons (450 metric tons) for the first 2000 tons (1800 metric tons) and one sample per 2000 tons (1800 metric tons) thereafter. A minimum of five tests shall be required for stockpiles less than 4000 tons (3600 metric tons).

(b) Evaluation of Test Results. All of the extraction results shall be compiled and averaged for asphalt binder content and gradation and, when applicable G_{mm}. Individual extraction test results, when compared to the averages, will be accepted if within the tolerances listed below.

Parameter	Homogeneous/ Conglomerate	Conglomerate "D" Quality
1 in. (25 mm)		± 5 %
3/4 in. (19mm)		
1/2 in. (12.5mm)	± 8 %	± 15 %
No. 4 (4.75 mm)	± 6 %	± 13 %
No. 8 (2.36 mm)	±5 %	
No. 16 (1.18 mm)		± 15 %
No. 30 (600 µm)	± 5. %	
No. 200 (75 µm)	± 2.0 %	± 4.0 %
Asphalt Binder	± 0.4 % 1/	± 0.5 %
Gmm Gmm	±0.02 % 2/ ±0.03 % 3/	

1/ The tolerance for conglomerate 3/8 shall be ± 0.3 %.

2/ Applies only to conglomerate 3/8. When variation of the G_{mm} exceeds the ± 0.02 % tolerance, a new conglomerate 3/8 stockpile shall be created which will also require an additional mix design.

3/ Applies only to conglomerate variable size. When variation of the G_{mm} exceeds the ± 0.03 tolerance, a new conglomerate variable size stockpile shall be created which will also require an additional mix design.

If more than 20 percent of the individual sieves are out of the gradation tolerances, or if more than 20 percent of the asphalt binder content test results fall outside the appropriate tolerances, the RAP shall not be used in HMA unless the RAP representing the failing tests is removed from the stockpile. All test data and acceptance ranges shall be sent to the District for evaluation.

With the approval of the Engineer, the ignition oven may be substituted for extractions according to the Illinois Test Procedure, "Calibration of the Ignition Oven for the Purpose of

Characterizing Reclaimed Asphalt Pavement (RAP)".

1031.04 Quality Designation of Aggregate in RAP. The quality of the RAP shall be set by the lowest quality of coarse aggregate in the RAP stockpile and are designated as follows.

(a) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) surface mixtures are designated as containing Class B quality coarse aggregate.

(b) RAP from Superpave (Low ESAL)/HMA (Low ESAL) IL-19.0L binder and IL-9.5L surface mixtures are designated as Class D quality coarse aggregate.

(c) RAP from Class I, Superpave (High ESAL), or HMA (High ESAL) binder mixtures, bituminous base course mixtures, and bituminous base course widening mixtures are designated as containing Class C quality coarse aggregate.

(d) RAP from bituminous stabilized subbase and BAM shoulders are designated as containing Class D quality coarse aggregate.

Aggregate Quality Testing of RAP:

The processed pile shall have a maximum tonnage of 5,000 tons (4500 metric tons). The pile shall be crushed and screened with 100 percent of the material passing the 3/4 in. (19mm) sieve. The pile shall be tested for AC content and gradation and shall conform to all requirements of Article 1031.03 Testing, herein. Once the uniformity of the gradation and AC content has been established, the Contractor shall obtain a representative sample with district oversight of the sampling. This sample shall be no less than 50 lbs (25 kg) and this sample shall be delivered to a Consultant Lab, prequalified by the Department for extraction testing according to Illinois Modified AASHTO T 164. After the AC has been extracted, the Consultant Lab shall submit the test results along with the recovered aggregate to the District Office. The cost for this testing shall be paid directly by the Contractor. The District will forward the sample to the BMPR Aggregate Lab for MicroDeval Testing, according to Illinois Modified AASHTO T 327. A maximum loss of 15.0 percent will be applied for all HMA applications.

1031.05 Use of RAP in HMA. The use of RAP in HMA shall be as follows.

(a) Coarse Aggregate Size. The coarse aggregate in all RAP shall be equal to or less than the nominal maximum size requirement for the HMA mixture to be produced.

(b) Use in HMA Surface Mixtures (High and Low ESAL). RAP stockpiles for use in HMA surface mixtures (High and Low ESAL) shall be either homogeneous or conglomerate 3/8 or variable size in which the coarse aggregate is Class B quality or better.

(c) Use in HMA Binder Mixtures (High and Low ESAL), HMA Base Course, and HMA Base Course Widening. RAP stockpiles for use in HMA binder mixtures (High and Low ESAL), HMA base course, and HMA base course widening shall be homogeneous, conglomerate 5/8, or conglomerate 3/8, conglomerate variable size, in which the coarse aggregate is Class C quality or better.

(d) Use in Shoulders and Subbase. RAP stockpiles for use in HMA shoulders and stabilized subbase (HMA) shall be homogeneous, conglomerate 5/8, conglomerate 3/8, conglomerate variable size, or conglomerate DQ.

(e) The use of RAP shall be a contractor's option when constructing HMA in all contracts. When the Contractor chooses the RAP option, the percentage of RAP shall not exceed the amounts indicated in the table for a given N Design.

Maximum Mixture RAP Percentage

HMA Mixtures [1/ 3/]		Maximum % Rap	
Ndesign	Binder/Leveling Binder	Surface	Polymer Modified
30	30/40 [2/]	30	10
50	25/40 [2/ 4/]	15/25 [2/]	10 [4/]
70	25/30 [2/]	10/20 [2/]	10
90	10/15 [2/]	10/15 [2/]	10
105	10/15 [2/]	10/15 [2/]	10

1/ For HMA Shoulder and Stabilized Sub-Base (HMA) N-30, the amount of RAP shall not exceed 50% of the mixture.

2/ Value of Max % RAP If 3/8 Rap or conglomerate variable size RAP is utilized.

3/ When RAP exceeds 20% the AC shall be PG58 -22. However, when RAP exceeds 20% and is used in full depth HMA pavement the AC shall be PG58 -28.

4/ Polymerized Leveling Binder, IL-4.75 is 15 %

1031.06 HMA Mix Designs. At the Contractor's option, HMA mixtures may be constructed utilizing RAP material meeting the above detailed requirements.

RAP designs shall be submitted for volumetric verification. If additional RAP stockpiles are tested and found that no more than 20 percent of the results, as defined under "Testing" herein, are outside of the control tolerances set for the original RAP stockpile and HMA mix design, and meets all of the requirements herein, the additional RAP stockpiles may be used in the original mix design at the percent previously verified.

1031.07 HMA Production. The coarse aggregate in all RAP used shall be equal to or less than the nominal maximum size requirement for the HMA mixture being produced.

To remove or reduce agglomerated material, a scalping screen, crushing unit, or comparable sizing device approved by the Engineer shall be used in the RAP feed system to remove or reduce oversized material. If material passing the sizing device adversely affects the mix production or quality of the mix, the sizing device shall be set at a size specified by the Engineer.

If the RAP control tolerances or QC/QA test results require corrective action, the Contractor

shall cease production of the mixture containing RAP and either switch to the virgin aggregate design or submit a new RAP design. When producing mixtures containing conglomerate 3/8 or conglomerate variable size RAP, a positive dust control system shall be utilized.

HMA plants utilizing RAP shall be capable of automatically recording and printing the following information.

(a) Drier Drum Plants

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA Mix number assigned by the Department

(3) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) Accumulated weight of dry aggregate (combined or individual) in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)

(4) Accumulated dry weight of RAP in tons (metric tons) to the nearest 0.1 ton (0.1 metric ton)

(5) Accumulated mineral filler in revolutions, tons (metric tons), etc. to the nearest 0.1 unit.

(6) Accumulated asphalt binder in gallons (liters), tons (metric tons), etc. to the nearest 0.1 unit.

(7) Residual asphalt binder in the RAP material (per size) as a percent of the total mix to the nearest 0.1 unit.

(8) Aggregate and RAP moisture compensators in percent as set on the control panel (Required when accumulated or individual aggregate and RAP are printed in wet condition).

(b) Batch Plants

(1) Date, month, year, and time to the nearest minute for each print.

(2) HMA mix number assigned by the Department.

(3) Individual virgin aggregate hot bin batch weights to the nearest pound (kilogram)

(4) Mineral filler weight to the nearest pound (kilogram).

(5) Individual RAP Aggregate weight to the nearest pound (kilogram).

(6) Virgin asphalt binder weight to the nearest pound (kilogram)

(7) Residual asphalt binder of each RAP size material as a percent of the total mix to the

nearest 0.1 percent.

The printouts shall be maintained in a file at the plant for a minimum of one year or as directed by the Engineer and shall be made available upon request. The printing system will be inspected by the Engineer prior to production and verified at the beginning of each construction season thereafter.

1031.08 RAP in Aggregate Surface Course and Aggregate Shoulders. The use of RAP in aggregate surface course and aggregate shoulders shall be as follows.

(a) Stockpiles and Testing. RAP stockpiles may be any of those listed in Article 1031.02, except "Other". The testing requirements of Article 1031.03 shall not apply.

(b) Gradation. One hundred percent of the RAP material shall pass the 1 1/2 in. (37.5 mm) sieve. The RAP material shall be reasonably well graded from coarse to fine. RAP material that is gap-graded or single sized will not be accepted."

51. COARSE AGGREGATE FOR HOT-MIX ASPHALT (HMA) (D-1)
Effective : March 16, 2009

Revise Article 1004.03 of the Standard Specifications to read:

1004.03 Coarse Aggregate for Hot-Mix Asphalt (HMA). The aggregate shall be according to Article 1004.01 and the following.

(a) Description. The coarse aggregate for HMA shall be according to the following table.

Use	Mixture	Aggregates Allowed
Class A	Seal or Cover	Gravel Crushed Gravel Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag Crushed Concrete

Use	Mixture	Aggregates Allowed
HMA All Other	Stabilized Subbase or Shoulders	Gravel Crushed Gravel Crushed Stone Crushed Sandstone Crushed Slag Crushed Concrete The coarse aggregate for stabilized subbase, if approved by the Engineer, may be produced by blending aggregates according to Article 1004.04(a).
HMA High ESAL Low ESAL	IL-25.0, IL-19.0, or IL-19.0L	Crushed Gravel Crushed Stone Crushed Sandstone Crushed Slag (ACBF)
HMA High ESAL Low ESAL	C Surface IL-12.5,IL-9.5, or IL-9.5L	Gravel (only when used in IL-9.5L) Crushed Gravel Crushed Stone Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag (except when used as leveling binder)
HMA High ESAL	D Surface IL-12.5 or IL-9.5	Crushed Gravel Crushed Stone (other than Limestone) Crushed Sandstone Crushed Slag (ACBF) Crushed Steel Slag (except when used as leveling binder) Limestone may be used in Mixture D if blended by volume in the following coarse aggregate percentages: Up to 25% Limestone with at least 75% Dolomite. Up to 50% Limestone with at least 50% any aggregate listed for Mixture D except Dolomite. Up to 75% Limestone with at least 25% Crushed Slag (ACBF) or Crushed Sandstone.

Use	Mixture	Aggregates Allowed
HMA High ESAL	E Surface IL-12.5 or IL-9.5	Crushed Gravel Crushed Stone (other than Limestone and Dolomite) Crushed Sandstone No Limestone. Dolomite may be used in Mixture E if blended by volume in the following coarse aggregate percentages: Up to 75% Dolomite with at least 25% Crushed Sandstone, Crushed Slag (ACBF), or Crushed Steel Slag. When Crushed Slag (ACBF) or Crushed Steel Slag are used in the blend, the blend shall contain a minimum of 25% to a maximum of 75% of either Slag by volume. Up to 50% Dolomite with at least 50% of any aggregate listed for Mixture E. If required to meet design criteria, Crushed Gravel or Crushed Stone (other than Limestone or Dolomite) may be blended by volume in the following coarse aggregate percentages: Up to 75% Crushed Gravel or Crushed Stone (other than Limestone or Dolomite) with at least 25% Crushed Sandstone, Crushed Slag (ACBF), or Crushed Steel Slag. When Crushed Slag (ACBF) or Crushed Steel Slag are used in the blend, the blend shall contain a minimum of 25% to a maximum of 50% of either Slag by volume.
HMA High ESAL	F Surface IL-12.5 or IL-9.5	Crushed Sandstone No Limestone. Crushed Gravel, Crushed Concrete, or Crushed Dolomite may be used in Mixture F if blended by volume in the following coarse aggregate percentages: Up to 50% Crushed Gravel, Crushed Concrete or Crushed Dolomite with at least 50% Crushed Sandstone, Crushed Slag (ACBF), Crushed Steel Slag, or any Other Crushed Stone (to include Granite, Diabase, Rhyolite or Quartzite). When Crushed Slag (ACBF) or Crushed Steel Slag are used in the blend, the blend shall contain a minimum of 50% to a maximum of 75% of either Slag by volume.

(b) Quality. For surface courses and binder courses when used as surface course, the coarse aggregate shall be Class B quality or better. For Class A (seal or cover coat), other binder courses, and surface course IL-9.5L (Low ESAL), the coarse aggregate shall be Class C quality or better. For All Other courses, the coarse aggregate shall be Class D quality or

better.

(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, 2, & 3	3/8 in. (10 mm) Seal	CA 16
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & 3	Cover	CA 14
HMA High ESAL	IL-25.0 IL-19.0 IL-12.5 IL-9.5	CA 7 [1/] or CA 8 [1/] CA 11 [1/] CA 16 and/or CA 13 CA 16
HMA Low ESAL	IL-19.0L IL-9.5L	CA 11 [1/] CA 16
HMA All Other	Stabilized Subbase or Shoulders	CA 6 [2/], CA 10, or CA 12

1/ CA 16 or CA 13 may be blended with the gradations listed.

2/ CA 6 will not be permitted in the top lift of shoulders.

52. POROUS GRANULAR EMBANKMENT, SUBGRADE

Effective: September 30, 1985
Revised: August 1, 2008

This work consists of furnishing, placing, and compacting porous granular material to the lines and grades shown on the plans or as directed by the Engineer in accordance with applicable portions of Section 207 of the Standard Specifications. The material shall be used as a bridging layer over soft, pumpy, loose soil and for placing under water and shall conform with Article 1004.05 of the Standard Specifications except the gradation shall be as follows:

1. Crushed Stone, Crushed Blast Furnace Slag, and Crushed Concrete

Sieve Size	Percent Passing
*6 in. (150 mm)	97 ± 3
*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	45 ± 25
No. 200 (75 µm)	5 ± 5

2. Gravel** and Crushed Gravel

Sieve Size	Percent Passing
*6 in. (150 mm)	97 ± 3

*4 in. (100 mm)	90 ± 10
2 in. (50 mm)	55 ± 25
No. 4 (4.75 mm)	30 ± 20
No. 200 (75 μm)	5 ± 5

* For undercut greater than18 inches (450 mm) the percent passing the 6 inch (150 mm) sieve may be 90 ± 10 and the 4 inch (100 mm) sieve requirements eliminated.

** Not to be used in 30 or 40 year extended life concrete pavement or extended life bituminous concrete pavement (full depth).

The porous granular material shall be placed in one lift when the total thickness to be placed is 2 feet (600 mm) or less or as directed by the Engineer. Each lift of the porous granular material shall be rolled with a vibratory roller meeting the requirements of Article 1101.01(g) of the Standard Specifications to obtain the desired keying or interlock and compaction. The Engineer shall verify that adequate keying has been obtained.

A 3 inch (75 mm) nominal thickness top lift of capping aggregate having a gradation of CA 6 will be required when Aggregate Subgrade is not specified in the contract and Porous Granular Embankment, Subgrade will be used under the pavement and shoulders. Capping aggregate will not be required when embankment meeting the requirements of Section 207 of the Standard Specifications or granular subbase is placed on top of the porous granular material.

Construction equipment not necessary for the completion of the replacement material will not be allowed on the undercut areas until completion of the recommended thickness of the porous granular embankment subgrade.

Full depth subgrade undercut should occur at limits determined by the Engineer. A transition slope to the full depth of undercut shall be made outside of the undercut limits at a taper of 1 foot (300 mm) longitudinal per 1 inch (25 mm) depth below the proposed subgrade or bottom of the proposed aggregate subgrade when included in the contract.

Method of Measurement. This work will be measured for payment in accordance with Article 207.04 of the Standard Specifications. When specified on the contract, the theoretical elevation of the bottom of the aggregate subgrade shall be used to determine the upper limit of Porous Granular Embankment, Subgrade. The volume will be computed by the method of average end areas.

Basis of Payment. This work shall be paid for at the contract unit price per cubic yard (cubic meter) for POROUS GRANULAR EMBANKMENT, SUBGRADE.

The Porous Granular Embankment, Subgrade shall be used as field conditions warrant at the time of construction. No adjustment in unit price will be allowed for an increase or decrease in quantities from the estimated quantities shown on the plans.

STATUS OF UTILITIES TO BE ADJUSTED
Effective: January 30, 1987
Revised: July 1, 1994

Utility companies involved in this project have provided the following estimated dates:

Name of Utility	Type	Location	Estimated Dates for Start and Completion of Relocation or Adjustments
Com Ed	Electric	Bluff Ave & IHBRR	11/15/2009 – 12/15/2009
		3+90, R	Completed by 01/29/2010
		6+00, R	Completed by 01/29/2010
NICOR	Gas	No Conflict	N/A
AT&T	Telephone	North Side of Maple	Completed by 1/29/2010
Sprint	Communication	No Conflict	N/A
Comcast	Cable TV	No Conflict	N/A

The above represents the best information available to the Department and is included for the convenience of the bidder. The applicable portions of Articles 105.07 and 107.31 of the Standard Specifications shall apply.

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO

INFORMATION PAMPHLET: Construction Under MWRD Sewer Permits

SUBJECT: Permit No. 09-165 Date of Issue: FEB 11 2010

Project: Plans for Proposed Federal Aid Highway Bluff Avenue – Stage 3

Location: Bluff Ave. between Cossitt & 47th St., Village of LaGrange, IL

The above permit was issued on the date indicated and copies of the permit are being mailed as follows:

____ Both copies of the permit, together with the permit drawings are mailed to the Permittee.

_X_ One copy of the permit together with the permit drawings is mailed to the Permittee and one copy is mailed to the designated individual.

If you need any assistance or if you have any questions at any time involving this project or other related matters, please call the Local Sewer Systems Section (Telephone (312) 751-3260). Requirements governing sewer construction are contained in the Sewer Permit Ordinance and the Manual of Procedures for the Administration of the Sewer Permit Ordinance (Manual). Your cooperation is solicited and your attention is invited to the following:

1. Read carefully the conditions of the permit and the special conditions that may have been included. If you object to any of the special conditions, return the permit with a letter indicating your non-acceptance, but do not proceed with the construction. Construction constitutes acceptance of the special conditions.

2. Prior to the beginning of construction, advance notice of at least two working days is required. For your protection, a written notice by certified mail is preferable, provided the notice is received at least two working days in advance of construction. At a minimum, a telephone call to the Local Sewer Systems field office is required two working days in advance of the construction start. (Telephone (708) 588-4055). Work on direct connections to MWRD facilities shall not be started without the presence of a MWRD representative.

3. On small projects (e.g., building connection) our inspectors should, as a general rule, visit the job in the first part of the same day of the job start. Please look for him. If he does not appear on the job, chances are we have not received the advance notice. It is worth your while to check, or better yet, make another call.

4. A copy of the approved permit together with the permit drawings must be kept at the job site at all times while construction is in progress.

5. No sewer shall be backfilled unless it has been inspected and approved by the Inspection Engineer or his authorized representative and the backfilling authorized by him.

SEWERAGE SYSTEM PERMIT

MWRDGC Permit No. 09-254

METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO
100 EAST ERIE, CHICAGO, ILLINOIS, 60611
312-751-5600

http://www.mwrd.org

INSTRUCTIONS FOR COMPLETING PERMIT FORM: Submit four typed copies of permit application (eight pages) and any required schedules listed below; do not leave any blank spaces; use "X" for checking applicable information. Also submit four copies of location map and plans. Submit two copies of specifications, if specifications are not part of the plan sheets. Address all correspondence to the Local Sewer Systems Section; for any inquiries or assistance, telephone (312) 751-3260.

NAME AND LOCATION:

Name of project (as shown on plans): Plans For Proposed Federal Aid Highway Bluff Avenue - Stage 3

Location of Project (street address or with respect to two major streets): Bluff Avenue between Cossitt Avenue and 47th Street.

Municipality (Township, if unincorporated) La Grange

Section 4, Township 38 N, Range 12

Is project in MWRDGC combined sewer area Yes ☒ No ☐

SERVICE BASIN
STICKNEY WRP

DOCUMENTS BEING SUBMITTED

☒ Basic Information (Required in all cases)	Schedule A	(Page 4 of 8)
☒ Sewer Summary (Required in all cases)	Schedule B	(Page 5 of 8)
☒ Sewer Connections (Required in all cases)	Schedule C	(Page 6 of 8)
☐ Detention Facilities	Schedule D	(2 Pages)
☐ Lift Station and/or Force Main	Schedule E	(1 Page)
☐ Characteristics of Waste Discharges	Schedule F	(1 Page)
☐ Treatment or Pre-treatment Facilities	Schedule G	(2 Pages)
☐ Certification Relative to Compliance with Art. 4-1, 6-2d, & 6-3b	Schedule H	(1 Page)
☐ Affidavit Relative to Compliance with Art. 4-1, 6-2d, & 6-3b	Schedule J	(1 Page)
☐ Affidavit of Disclosure of Property Interest	Schedule K	(2 Pages)
☐ Notice of Requirements for Storm Water Detention	Schedule L	(2 Pages)
☐ Current Survey of Property Interests	Exhibit A	

OTHER DOCUMENTS: Indicate title, number of pages and originator **Plans For Proposed Federal Aid Highway Bluff Avenue - Stage 3, 87 pages, Heuer & Associates**

NOTE: ATTACH FEE PAYMENT VOUCHER AND PAYMENT IF APPLICABLE

MWRDGC USE ONLY
Application received SEP 21 2009 Permit issued FEB 10 2010 WRP STICKNEY

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GENERAL CONDITIONS OF THE PERMIT

1. **Adequacy of Design.** The schedules, plans, specifications and all other data and documents submitted for this permit are made a part hereof. The responsibility for the adequacy of the design shall rest solely with the Design Engineer and the issuing of this permit shall not relieve him of that responsibility. The issuance of this permit shall not be construed as approval of the concept or construction details of the proposed facilities and shall not absolve the Permittee, Co-permittee or Design Engineer of their respective responsibilities.
2. **Joint Construction and Operation Permits.** Unless otherwise stated by the Special Conditions, the issuance of this permit shall be a joint construction and operation permit provided all General, Standard and Special Conditions are complied with.
3. **Allowable Discharges.** Discharges into the sanitary sewer system constructed under this permit shall consist of sanitary sewage only. Unless otherwise stated by the Special Conditions, there shall be no discharge of industrial wastes under this permit. Storm waters shall not be permitted to enter the sanitary sewer system. Without limiting the general prohibition of the previous sentence, roof and footing drains shall not be connected to the sanitary sewer system.
4. **Construction Inspection.** All sewer construction shall be inspected and approved by a Registered Professional Engineer acting on behalf of the Permittee or the owner of the project, or by a duly authorized and competent representative of the Professional Engineer. No sewer trenches shall be backfilled except as authorized by the Inspection Engineer after having inspected and approved the sewer installation
5. **Maintenance.** The sewer connections, lines, systems or facilities constructed hereunder or serving the facilities constructed hereunder shall be properly maintained and operated at all times in accordance with all applicable requirements. It is understood that the responsibility for maintenance shall run as a joint and several obligation against the property served, the owner and/or the operator of the facilities, and said responsibility shall not be discharged nor in any way affected by change of ownership of said property.

MWRDGC STANDARD CONDITIONS

6. **Indemnification.** The Permittee shall be solely responsible for and shall defend, indemnify and save harmless the Metropolitan Water Reclamation District of Greater Chicago (hereinafter MWRDGC) from and against any and all claims, costs, damages, or expenses the MWRDGC may suffer, incur, sustain or become liable for on account of any injury to, or death of, any person or persons, or any damage to, or destruction of, any real or personal property that may be caused by the construction, use, state of repair; operation and maintenance of the proposed facilities, arising out of or in consequence of the issuance of this permit. Without limiting the generality of the preceding sentence, the provisions of this paragraph shall extend to indemnify and save harmless the MWRDGC from any claims or damages arising out of or in connection with the termination or revocation of this permit.
7. **Construction by MWRDGC.** Permittee understands and acknowledges that the MWRDGC has the right and power to construct and extend sewer service facilities and render such services within the area to be served by the project for which this permit is issued, and that by the MWRDGC constructing and extending such sewer service facilities and rendering such services, the facilities constructed by the Permittee under this permit may decrease in value, become useless or of no value whatsoever, the Permittee may also sustain a loss of business, income and profits.

   Therefore, by accepting this permit and acting thereon, the Permittee, for itself, its successors and assigns, does remise, release and forever discharge the MWRDGC of any and all claims whatsoever which Permittee may now have or hereafter acquire and which Permittee's successors and assigns hereafter can, shall, or may have against the MWRDGC for all losses and damages, either direct or indirect, claimed to have been incurred by reason of the construction or extension at any time hereafter by the MWRDGC of sewer service facilities in the service area contemplated by this permit, the rendering of such services, which MWRDGC facilities and services decrease the value of the facilities constructed by the Permittee under this permit, make same useless or of no value whatsoever, including but not limited to, any and all damages arising under Illinois Revised Statutes, Chapter 42, Section 339; the taking of private property for public use without due compensation; the interference with the contracts of Permittee; the interference with Permittee's use and enjoyment of its land; and the decrease in value of Permittee's land.
8. **Third Parties.** This permit does not grant the right or authority to the Permittee: (a) to construct or encroach upon any lands of the MWRDGC or of any other parties, (b) to construct outside of the territorial boundaries of the MWRDGC, (c) to construct or encroach upon the territorial boundaries of any units of local government within the MWRDGC, (d) to connect to or discharge into or be served by (directly or indirectly) any sewer or sewer system owned or operated by third parties.
9. **Costs.** It is expressly stipulated and clearly understood that the sewerage system or facilities for which the permit is issued shall be constructed, operated and maintained at no cost to the MWRDGC.

10. **Other Construction.** The MWRDGC reserves the right, privilege and authority to permit others to reconstruct, change, alter and replace all sewers and appurtenances thereto at the point of connection of any sewerage system to an MWRDGC interceptor and/or in public right-of-ways of MWRDGC easements, and to introduce additional sewage flow through this connection into the intercepting sewer of said MWRDGC.
11. **Change of Use.** This permit shall be incorporated in the Building and Occupancy Permit for the building or buildings served under this permit The owner or occupant of any building served under this permit shall not cause, or permit, a change of use of the building to a use other than that indicated in this permit without first having obtained a written permission from the General Superintendent of the MWRDGC.
12. **Interceptors Overloading.** The MWRDGC hereby serves notice that its interceptors may flow full and may surcharge, and flooding of the proposed system may occur. The Permittee agrees that the proposed systems shall be constructed, operated and maintained at the sole risk of the Permittee.
13. **Non-Transferability.** This permit may not be assigned or transferred without the written consent of the General Superintendent of the MWRDGC.
14. **Termination.** It is understood and agreed that in the event the Permittee shall default in or fail to perform and carryout any of the covenants, conditions and provisions of this permit and such default or violation shall continue for sixty (60) days after receipt or notice thereof in writing given by the General Superintendent of the MWRDGC, then it shall be lawful for the MWRDGC at or after the expiration of said sixty (60) days to declare said permit terminated The Permittee agrees that immediately upon receipt of written notice of such termination it will stop all operations, discontinue any discharges and disconnect the sewerage system or facilities constructed under this permit. If the Permittee fails to do so, the MWRDGC shall have the right to disconnect said system. The Permittee hereby agrees to pay for any costs incurred by the MWRDGC for said disconnection. The various rights and remedies of the MWRDGC contained in this permit shall be construed as cumulative, and no one of them shall be construed as exclusive of any one or more of the others or exclusive of any other rights or remedies allowed by applicable rules, regulations, ordinances and laws. An election by the MWRDGC to enforce any one or more of its rights or remedies shall not be construed as a waiver of the rights of the MWRDGC to pursue any other rights or remedies provided under the terms and provisions of this permit or under any applicable rules, regulations, ordinances or laws.
15 **Expiration.** This permit shall expire if construction has not started within one (1) year from the date of issue. Construction under an expired permit is deemed construction without a permit. All construction under this permit shall be completed within two (2) years after start of construction. If conditions so warrant, an extension may be granted. For publicly financed projects (e.g. special assessments) the one(1) year period indicated will be considered from the date of final court action.
16. **Revocation.** In issuing this permit, the MWRDGC has relied upon the statements and representations made by the Permittee or his agent. Any incorrect statements or representations shall be cause for revocation of this permit, and all the rights of the Permittee hereunder shall immediately become null and void.
17. **Advance Notice.** Prior to commencement of construction under this permit, the Permittee shall give the MWRDGC an advance notice of at least two working days. When advance notice is given, the Permittee shall provide the permit number, municipality and location.
18. **Compliance with Plans and Specifications.** All construction shall be in accordance with the plans and specifications submitted for this permit and made a pan hereof. No changes in, or deviation from the plans and specifications which affect capacity, maintenance, design requirements, service area or permit requirements shall be permitted unless revised plans shall have been submitted to, and approved by the MWRDGC The permit together with a set of the plans and specifications (revised plans and specifications, if any) shall be kept on the job site at all times during construction until final inspection and approval by the MWRDGC.
19. **Testing and Approval.** All construction under this permit shall be subject to inspection, testing and approval by the MWRDGC. All testing shall be made, or caused to be made, by the Permittee at no cost to the MWRDGC and in the presence of the MWRDGC representative. Upon satisfactory completion of construction, the Permittee and the owner shall submit, or cause to be submitted, a completion certificate and request for approval on the form prescribed by the MWRDGC. No sewer or other facilities shall be put in service until all the conditions of the permit have been satisfactorily met.
20. **Record Drawings.** Within sixty (60) days after final inspection and approval by the MWRDGC, the Permittee shall furnish, or cause to be furnished to the MWRDGC, a set of Record drawings, or a statement that the project was constructed in accordance with the original plans and specifications.

21. **Compliance with Rules and Regulations.** The Permittee here by expressly assumes all responsibilities for meeting the requirements of all applicable rules, regulations, ordinances and laws of Local, State and Federal authorities. Issuance of this permit shall not constitute a waiver of any applicable requirements.

SCHEDULE A
BASIC INFORMATION

MWRDGC Permit No 09-234

1. **NAME OF PROJECT** Plans For Federal Aid Highway Bluff Avenue - Stage 3
(as shown on the plans)

2. **APPURTENANCES** (check all applicable items)

☐ Siphon ☐ Drop Manholes
☐ Stream Crossing ☐ Direct Connections to MWRDGC

3. **RECEIVING SANITARY SEWER SYSTEM**

A. System that project will connect to is:
☒ Existing ☒ Proposed /Under Construction → MWRDGC Permit # 08-306

B. List owners of all sewers from project to MWRDGC interceptor Village of La Grange

4. **EXISTING LIFT STATION**

☒ No ☐ Yes → Receiving system includes existing lift station

If yes, indicate location _____

5. **FLOOD PLAIN**

Is any part of the project area in a flood plain?
☒ No ☐ Yes → Percentage of area in flood plain _____ %

Flood crest elevation _____ ft.

Identify any manholes in flood plain: _____

6. **SIZE OF PROJECT**

A. What is the size of this project?	4.65	acres	
B. Total contiguous ownership, including project	400	acres*	Total contiguous approximated ownership
C. Existing impervious area within project	2.88	acres	
D. New impervious area created within project	0.32	acres	

7. **DETENTION**

A. Is detention provided under this permit?
☒ No ☐ Yes → Detention required by: ☐ MWRDGC ☐ Other

B. Is project in the service area of existing detention reservoir?
☒ No ☐ Yes → MWRDGC Permit No. _____

SCHEDULE B

MWRDGC Permit No 09-234

SEWER SUMMARY

COMPLETE IN ALL CASES

PROJECT NAME: Plans For Federal Aid Highway Bluff Avenue - Stage 3
(as shown on the plans)

1. **Sewer Summary,** including all building service sewers, stubs and risers:
   Include all sewers in combined sewer area
   Include all sanitary sewers in separate sewered area

	Service Sewers						
Pipe Size in.	6 SAN	8 SAN	10 SAN	8 COM	12COMB	18 COMB	60COMB
Total length ft.	844	58	2,134	46	52	5	108
Min. slope used -%	1.00	1.00	0.30%	0.50%	0.22%	0.79%	0.42%
Pipe Material *	PVC	PVC	PVC	PVC	PVC	PVC	RCP
Total manholes	0	1	10	1	1	0	1
Total cleanouts	0	0	0	0	0	0	0

* Pipe material and joint specifications must be shown on plans. See Manual of Procedures for acceptable specifications.

2. **NATURE OF PROJECT** (Check all that apply)

- ☒ Project is publicly financed
- ☐ Sewer system serving a subdivision
- ☐ Off-site trunk sewer to serve subdivision
- ☐ Sewer extension to serve future development
- ☒ Storm sewers in combined sewer area
- ☐ Service connections to serve buildings (Schedule C)
- ☒ Other Street reconstruction and seperation of a combined sewer and extention of a 60" relief sewer

3. **SEWER EXTENSIONS**

If any part of the proposed project is designed to service future connections (not included in Schedule C), check yes below and submit service area map and estimate of population equivalent to be served.

☒ NO ☐ YES ⟶ ☐ Service area map

☐ P.E. estimate submitted

SCHEDULE B

MWRDGC Permit No 09-234

SEWER SUMMARY

COMPLETE IN ALL CASES

PROJECT NAME: Plans For Federal Aid Highway Bluff Avenue - Stage 3
(as shown on the plans)

1. **Sewer Summary,** including all building service sewers, stubs and risers:
   Include all sewers in combined sewer area
   Include all sanitary sewers in separate sewered area

Pipe Size in.	8 STM	10 STM	12 STM	15 STM	18 STM	24 STM	
Total length ft.	274	319	167	470	1,013	1,018	
Min. slope used - %	0.55%	0.40%	0.60%	0.25%	0.40%	0.30%	
Pipe Material *	PVC	PVC	PVC	PVC	RCP	RCP	
Total manholes	0	1	0	2	3	6	
Total cleanouts	0	0	0	0	0	0	

* Pipe material and joint specifications must be shown on plans. See Manual of Procedures for acceptable specifications.

2. **NATURE OF PROJECT** (Check all that apply)

- ☒ Project is publicly financed
- ☐ Sewer system serving a subdivision
- ☐ Off-site trunk sewer to serve subdivision
- ☐ Sewer extension to serve future development
- ☒ Storm sewers in combined sewer area
- ☐ Service connections to serve buildings (Schedule C)
- ☒ Other Street reconstruction and seperation of a combined sewer and extention of a 60" relief sewer

3. **SEWER EXTENSIONS**

If any part of the proposed project is designed to service future connections (not included in Schedule C), check yes below and submit service area map and estimate of population equivalent to be served.

☒ NO ☐ YES ⟶ ☐ Service area map

☐ P.E. estimate submitted

SCHEDULE - C
SEWER CONNECTIONS

MWRDGC Permit No. 09-234

(FILL OUT ALL SECTIONS THAT APPLY)

1. **BUILDING CONNECTION DATA** **N/A**

A. RESIDENTIAL BUILDINGS

☐ Single Family Total dwelling units * _____

Number of sewer connections * _____ PE** _____

☐ Multi Family Total dwelling units * _____

Number of sewer connections * _____ PE** _____

B. COMMERCIAL& RECREATIONAL BUILDINGS

☐ Number of sewer connections _____ PE** _____

C. INDUSTRIAL BUILDINGS

☐ Number of sewer connections _____ PE** _____

* Each sanitary line exiting a building is a connection

** Population Equivalent

2. **BUILDING USE - (Check all that apply)** **N/A**

A. COMMERCIAL & RECREATIONAL

☐ Food preparation or processing (install grease separator)
☐ Auto service (install triple basin)
☐ Auto wash (install mud basin)
☐ Swimming pool (provide pool plans)
☐ Other _____

B. INDUSTRIAL BUILDINGS

☐ Sewer connections will receive domestic sewage only
☐ Industrial waste is produced

NOTE: If industrial waste is produced, submit Schedule F & Schedule G and plumbing plans along with flow diagram for pretreatment system.

SPECIAL CONDITIONS FOR MWRD PERMIT NO. 09-234

1. This permit does not serve as, substitute for, or preclude the need for any permit/permission/authorization which may be required for the project from the Illinois Environmental Protection Agency.

2. All abandoned sewers/forcemains shall be plugged at both ends with a minimum of two (2) feet long non-shrink concrete/mortar plugs.

3. The sewer covered by this permit shall not be put in service until the receiving system shown or referred to on the plans is completed by the parties involved and approved or accepted by the MWRD. The issuance of this permit shall not be construed as a representation by the MWRD that the receiving system will be completed or approved in time to serve this project.

ENGINEERING CERTIFICATIONS

MWRDGC Permit No. 09-234

CERTIFICATE BY DESIGN ENGINEER: I hereby certify that the project described herein has been designed in accordance with the requirements set forth in this application and all applicable ordinances, rules, regulations, Local, State and Federal laws, and design criteria of the issuing authority; that the storm drainage and sanitary sewer system designed for this project are proper and adequate; that where the design involves one or more connections to a existing local sewer system, the capacity of said system has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

Comments, if any: _____

Engineering Firm: Heuer & Associates **Telephone:** (708) 492 - 1000

Address: 2315 Enterprise Drive **City:** Westchester **Zip:** 60154

Signature: _____ **Date:** 07/16/09

(Name and Title) **John R. Hubeny, P.E.**

JOHN R. HUBENY 062-059136 LICENSED PROFESSIONAL P.E. ENGINEER SEAL OF ILLINOIS

CERTIFICATE BY MUNICIPAL OR SYSTEM ENGINEER: The application and the drawings, together with other, data being submitted with this application, have been examined by me and are found to be in compliance with all applicable requirements. The manner of drainage is satisfactory and proper. The existing local sewer system to which the project discharges has been examined and the system is found to be adequate to transport the wastewater that will be added through the proposed sewer without violating any provisions of the Illinois Environmental Protection Act or the rules and regulations thereunder.

I hereby certify that the project area is within the municipal corporate limits. ☒ YES ☐ NO

Owner of Local Sewer System: Village of La Grange

Municipal Engineer: Heuer & Associates **Telephone:** 708-492-1000

Address: 2315 Enterprise Drive **City:** Westchester **Zip** 60154

Signature: _____ **Date:** 7/16/09

(Name and Title) **Thomas A. Heuer, P.E., President**

THOMAS A. HEUER 37483 REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS SEAL

CERTIFICATE BY INSPECTION ENGINEER: I hereby certify that construction of the project will be in substantial compliance with the data and the plans submitted with this application; that approval will be obtained from the issuing authority prior to making any changes that would affect capacity, maintenance, design requirements, service area or the permit requirements; that a set of RECORD drawings, signed and sealed by the undersigned Engineer will be furnished to the MWRDGC within sixty (60) days after testing and approval by the District of the completed work.

Engineering Firm: Heuer & Associates **Telephone:** 708-492-1000

Address: 2315 Enterprise Drive **City:** Westchester **Zip** 60154

Signature: _____ **Date:** 07/16/09

(Name and Title) **John R. Hubeny, P.E.**

JOHN R. HUBENY 062-059136 P.E. SEAL LICENSED PROFESSIONAL ENGINEER OF ILLINOIS

SPECIAL CONDITIONS MWRDGC Permit No. 09-234

This permit is issued subject to the MWRDGC's General Conditions, Standard Conditions and the following Special Conditions:

☒ **NONE** ☐ **SEE ATTACHED**

If permit is granted:

☐ **Please return two (2) copies of the permit to the Permittee; or**
☒ **Please mail one (1) copy to Permittee and one (1) copy to the person designated below:**

Name: **Heuer & Associates, Attn: John R. Hubeny**

Address: **2315 Enterprise Drive - Suite 102, Westchester, IL 60154**

CERTIFICATE BY APPLICANTS: We have read and thoroughly understand the conditions and requirements of this permit application, and agree to conform to the permit conditions and other applicable requirements of the MWRDGC. It is understood that construction hereunder, after the permit is granted, shall constitute acceptance by the applicants of any Special Conditions that may be placed hereon by the MWRDGC. It is further understood that this application shall not constitute a permit until it is approved, signed and returned by the Chief Engineer of the MWRDGC.

PERMITTEE	**CO-PERMITTEE**
The project area is within municipal corporate limits. ☒ Yes ☐ No ☐ Not Applicable	**(Co-Permittee is Property Owner)** Title to property is held in a land trust: ☐ Yes ☐ No If yes, Co-Permittee shall be beneficiary with Power of Direction
Municipality **Village of La Grange**	Owner
Address **53 S. La Grange Road**	Address
City **La Grange** Zip **60525**	City Zip
Signature	Signature
Name **Ryan Gillingham, P.E.** (Print)	Name (Print)
Title **Director of Public Works**	Title
Date 9/18/09 Phone **708/579-2325**	Date Phone

REVIEW AND APPROVAL BY THE MWRDGC

Reviewed by: _____ (Local Sewer Systems) **Date** FEB 09 2010

Approved for Issue:

Approved by: Maureen Dunkin (For the Chief Engineer) **Date** FEB 10 2010

Illinois Department of Transportation

Storm Water Pollution Prevention Plan

Route	FAU1004	Marked Rte.	BLUFF AVENUE
Section	08-00079-03-FP	Project No.	M9003(514)
County	COOK	Contract No.	63353

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR10, issued by the Illinois Environmental Protection Agency for storm water discharges from Construction Site Activities.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Ryan Gillingham
Print Name

Director, Public Works
Title

Village of La Grange
Agency

Signature

3/11/2010
Date

I. Site Description:

A. The following is a description of the project location:

The project is located with in the Village of La Grange, Cook County, Illinois. The project is on Bluff Avenue and is bounded on the North by Cossitt Avenue and 47th Street on the South and on Maple Avenue between Bluff Avenue and the Indiana Harbor Belt Rail Road (IHBRR) right of way.

B. The following is a description of the construction activity which is the subject of this plan:

The project consists of total roadway reconstruction which involves the removal and replacement of the existing pavement, curb & gutters, sidewalks and driveways. The project also involves the replacement of the existing water main, an extention of a 60" combination relief sewer on Maple Avenue to the west side of Bluff Avenue, installation of storm sewers, sanitary sewers and the related sanitary and water services throughout the project along Bluff Avenue.

C. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation and grading:

The work is intended to be completed in five stages of construction in accordance with the plans as detailed on the Construction Phasing and Local Traffic Pattern plan sheets. Installation of temporary erosion control measures required to limit soil migration will be installed prior to the comencement of construction activities.4
Phase I - Maple Avenue storm and sanitary sewer construction.
Phase II - Bluff Avenue storm and sanitary sewer construction.
Phase III - Water main construction.
Phase IV - Roadway reconstruction. This phase of construction is to be completed in 4 separate stages and closing down one block at a time to complete the construction. This includes all of the pavement, sidewalk, driveway, curb and gutter removals, regrading of the roadway and placement of new sidewalks, curb and gutters, driveways and pavement up to the binder course.
Phase V - Placement of the HMA surface course.

D. The total area of the construction site is estimated to be 4.65 acres.

The total area of the site that is estimated will be disturbed by excavation, grading or other activities is 4.65 acres.

E. The following is a weighted average of the runoff coefficient for this project after construction activities are completed:

0.60

F. The following is a description of the soil types found at the project site followed by information regarding their erosivity:

Much of the area is covered by pavement. The immediate subgrade soils, below the topsoil or pavement consist of a brown and gray silty clay.

G. The following is a description of potentially erosive areas associated with this project:

Along the west side of Bluff Avenue between Benton and Elm the parkway is steep. Much of the area will remain vegitated with

H. The following is a description of soil disturbing activities, their locations, and their erosive factors (e.g. steepness of slopes, length of slopes, etc):

The area will be distrubed by utility and roadway reconstruction. Bluff Avenue generally slopes from West to East and essentially flat from north to south. There are some portions of the West parkway that exceed 5% in grade and slope to the back of curb between the cross streets of Benton and Elm. All other parways and the roadways are generally flat.

I. See the erosion control plans and/or drainage plans for this contract for information regarding drainage patterns, approximate slopes anticipated before and after major grading activities, locations where vehicles enter or exit the site and controls to prevent offsite sediment tracking (to be added after contractor identifies locations), areas of soil disturbance, the location of major structural and non-structural controls identified in the plan, the location of areas where stabilization practices are expected to occur, surface waters (including wetlands) and locations where storm water is discharged to surface water including wetlands.

J. The following is a list of receiving water(s) and the ultimate receiving water(s), and areal extent of wetland acreage at the site. The location of the receiving waters can be found on the erosion and sediment control plans:

The entire project is currently and proposed to be tributary to the deep tunnel. The access point to the deep tunnel for the sewers this project is tributary to is the drop shaft located at East Avenue and Cossitt Avenue.

K. The following pollutants of concern will be associated with this construction project:

- ☒ Soil Sediment
- ☒ Concrete
- ☒ Concrete Truck Waste
- ☒ Concrete Curing Compounds
- ☒ Solid Waste Debris
- ☒ Paints
- ☐ Solvents
- ☒ Fertilizers / Pesticides
- ☒ Petroleum (gas, diesel, oil, kerosene, hydraulic oil / fluids)
- ☒ Antifreeze / Coolants
- ☐ Waste water from cleaning construction equipment
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

II. Controls:

This section of the plan addresses the controls that will be implemented for each of the major construction activities described in I.C. above and for all use areas, borrow sites, and waste sites. For each measure discussed, the contractor will be responsible for its implementation as indicated. The contractor shall provide to the resident engineer a plan for the implementation of the measures indicated. The contractor, and subcontractors, will notify the resident engineer of any proposed changes, maintenance, or modifications to keep construction activities compliant

with the permit. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan:

A. Erosion and Sediment Controls

1. **Stabilized Practices:** Provided below is a description of interim and permanent stabilization practices, including site specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Stabilization practices may include but are not limited to: temporary seeding, permanent seeding, mulching, geotextiles, sodding, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Except as provided below in II(A)(1)(a) and II(A)(3), stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 7 days after the construction activity in that portion of the site has temporarily or permanently ceases on all disturbed portions of the site where construction will not occur for a period of 14 or more calendar days.

   a. Where the initiation of stabilization measures by the 7th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.

   The following Stabilization Practices will be used for this project:

- ☒ Preservation of Mature Vegetation
- ☐ Vegetated Buffer Strips
- ☒ Protection of Trees
- ☐ Temporary Erosion Control Seeding
- ☐ Temporary Turf (Seeding, Class 7)
- ☐ Temporary Mulching
- ☐ Permanent Seeding
- ☐ Erosion Control Blanket / Mulching
- ☒ Sodding
- ☐ Geotextiles
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the Stabilization Practices listed above will be utilized:

2. **Structural Practices:** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Such practices may include but are not limited to: perimeter erosion barrier, earth dikes, drainage swales, sediment traps, ditch checks, subsurface drains, pipe slope drains, level spreaders, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins. The installation of these devices may be subject to Section 404 of the Clean Water Act.

   The following Structural Practices will be used for this project:

- ☐ Perimeter Erosion Barrier
- ☐ Temporary Ditch Check
- ☒ Storm Drain Inlet Protection
- ☐ Sediment Trap
- ☐ Temporary Pipe Slope Drain
- ☐ Temporary Sediment Basin
- ☐ Temporary Stream Crossing
- ☐ Stabilized Construction Exits
- ☐ Turf Reinforcement Mats
- ☐ Permanent Check Dams
- ☐ Permanent Sediment Basin
- ☐ Aggregate Ditch
- ☐ Paved Ditch
- ☐ Rock Outlet Protection
- ☐ Riprap
- ☐ Gabions
- ☐ Slope Mattress
- ☐ Retaining Walls
- ☐ Slope Walls
- ☐ Concrete Revetment Mats
- ☐ Level Spreaders
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)
- ☐ Other (specify)

Describe how the Structural Practices listed above will be utilized:

3. **Storm Water Management:** Provided below is a description of measures that will be installed during the construction process to control pollutants in storm water discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.

   a. Such practices may include but are not limited to: storm water detention structures (including wet ponds), storm water retention structures, flow attenuation by use of open vegetated swales and natural depressions, infiltration of runoff on site, and sequential systems (which combine several practices).

      The practices selected for implementation were determined on the basis of the technical guidance in Section 59-8 (Erosion and Sediment Control) in Chapter 59 (Landscape Design and Erosion Control) of the Illinois Department of Transportation Bureau of Design and Environment Manual. If practices other than those discussed in Section 59-8 are selected for implementation or if practices are applied to situations different from those covered in Section 59-8, the technical basis for such decisions will be explained below.

   b. Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g. maintenance of hydrologic conditions such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

   Description of Storm Water Management Controls.

   The extent of the construction activities limit the storm water management controls necessary. No special needs are anticipated for this project.

4. **Other Controls:**

   a. Vehicle Entrances and Exits – Stabilized construction entrances and exits must be constructed to prevent tracking of sediments onto roadways.

      The contractor will provide the resident engineer with a written plan identifying the location of stabilized entrances and exits and the procedures (s)he will use to construct and maintain them.

   b. Material Delivery, Storage, and Use – The following BMPs shall be implemented to help prevent discharges of construction materials during delivery, storage, and use:
      - All products delivered to the project site must be properly labeled.
      - Water tight shipping containers and/or semi trailers shall be used to store hand tools, small parts, and most construction materials that can be carried by hand, such as paint cans, solvents, and grease.
      - A storage/containment facility should be chosen for larger items such as drums and items shipped or stored on pallets. Such material is to be covered by a tin roof or large sheets of plastic to prevent precipitation from coming in contact with the products being stored.
      - Large items such as light stands, framing materials and lumber shall be stored in the open in a general storage area. Such material shall be elevated with wood blocks to minimize contact with storm water runoff.
      - Spill clean-up materials, material safety data sheets, an inventory of materials, and emergency contact numbers shall be maintained and stored in one designated area and each Contractor is to inform his/her employees and the resident engineer of this location.

   c. Stockpile Management – BMPs shall be implemented to reduce or eliminate pollution of storm water from stockpiles of soil and paving materials such as but not limited to portland cement concrete rubble, asphalt concrete, asphalt concrete rubble, aggregate base, aggregate sub base, and pre-mixed aggregate. The following BMPs may be considered:
      - Perimeter Erosion Barrier
      - Temporary Seeding
      - Temporary Mulch
      - Plastic Covers
      - Soil Binders
      - Storm Drain Inlet Protection

The contractor will provide the resident engineer with a written plan of the procedures (s)he will use on the project and how they will be maintained.

d. Waste Disposal. No materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

e. The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.

f. The contractor shall provide a written and graphic plan to the resident engineer identifying where each of the above areas will be located and how they are to be managed..

5. Approved State or Local Laws

The management practices, controls and provisions contained in this plan will be in accordance with IDOT specifications, which are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Illinois Urban Manual, 1995. Procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials shall be described or incorporated by reference in the space provided below. Requirements specified in sediment and erosion site plans, site permits, storm water management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submittal of an NOI, to be authorized to discharge under permit ILR10 incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

Description of procedures and requirements specified in applicable sediment and erosion site plans or storm water management plans approved by local officials:

None

III. Maintenance:

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, the vegetation, erosion and sediment control measures and other protective measures identified in this plan. The resident engineer will provide maintenance guides to the contractor for the practices associated with this project.

IV. Inspections:

Qualified personnel shall inspect disturbed areas of the construction site which have not yet been finally stabilized, structural control measures, and locations where vehicles and equipment enter and exit the site. Such inspections shall be conducted at least once every seven (7) calendar days and within 24 hours of the end of a storm that is 0.5 inches or greater or equivalent snowfall.

A. Disturbed areas, use areas (storage of materials, stockpiles, machine maintenance, fueling, etc.), borrow sites, and waste sites shall be inspected for evidence of, or the potential for, pollutants entering the drainage system. Erosion and sediment control measures identified in the plan shall be observed to ensure that they are operating correctly. Discharge locations or points that are accessible, shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters. Locations where vehicles enter or exit the site shall be inspected for evidence of off site sediment tracking.

B. Based on the results of the inspection, the description of potential pollutant sources identified in section I above and pollution prevention measures identified in section II above shall be revised as appropriate as soon as practicable after such inspection. Any changes to this plan resulting from the required inspections shall be implemented within ½ hour to 1 week based on the urgency of the situation. The resident engineer will notify the contractor of the time required to implement such actions through the weekly inspection report.

C. A report summarizing the scope of the inspection, name(s) and qualifications of personnel making the inspection, the date(s) of the inspection, major observations relating to the implementation of this storm water pollution prevention plan, and actions taken in accordance with section IV(B) shall be made and retained as part

of the plan for at least three (3) years after the date of the inspection. The report shall be signed in accordance with Part VI. G of the general permit.

D. If any violation of the provisions of this plan is identified during the conduct of the construction work covered by this plan, the resident engineer shall notify the appropriate IEPA Field Operations Section office by email at: epa.swnoncomp@illinois.gov, telephone or fax within 24 hours of the incident. The resident Engineer shall then complete and submit an "Incidence of Noncompliance" (ION) report for the identified violation within 5 days of the incident. The resident engineer shall use forms provided by the Illinois Environmental Protection Agency and shall include specific information on the cause of noncompliance, actions which were taken to prevent any further causes of noncompliance, and a statement detailing any environmental impact which may have resulted from the noncompliance. All reports of noncompliance shall be signed by a responsible authority in accordance with Part VI. G of the general permit.

The Incidence of Non-Compliance shall be mailed to the following address:

Illinois Environmental Protection Agency
Division of Water Pollution Control
Attn: Compliance Assurance Section
1021 North Grand East
Post Office Box 19276
Springfield, Illinois 62794-9276

V. Non-Storm Water Discharges:

Except for flows from fire fighting activities, sources of non-storm water that is combined with storm water discharges associated with the industrial activity addressed in this plan must be described below. Appropriate pollution prevention measures, as described below, will be implemented for the non-storm water component(s) of the discharge.

A. Spill Prevention and Control – BMPs shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. The contractor shall produce a written plan stating how his/her company will prevent, report, and clean up spills and provide a copy to all of his/her employees and the resident engineer. The contractor shall notify all of his/her employees on the proper protocol for reporting spills. The contractor shall notify the resident engineer of any spills immediately.

B. Concrete Residuals and Washout Wastes – The following BMPs shall be implemented to control residual concrete, concrete sediments, and rinse water:
   - Temporary Concrete Washout Facilities shall be constructed for rinsing out concrete trucks. Signs shall be installed directing concrete truck drivers where designated washout facilities are located.
   - The contractor shall have the location of temporary concrete washout facilities approved by the resident engineer.
   - All temporary concrete washout facilities are to be inspected by the contractor after each use and all spills must be reported to the resident engineer and cleaned up immediately.
   - Concrete waste solids/liquids shall be disposed of properly.

C. Litter Management – A proper number of dumpsters shall be provided on site to handle debris and litter associated with the project. The Contractor is responsible for ensuring his/her employees place all litter including marking paint cans, soda cans, food wrappers, wood lathe, marking ribbon, construction string, and all other construction related litter in the proper dumpsters.

D. Vehicle and Equipment Cleaning – Vehicles and equipment are to be cleaned in designated areas only, preferably off site.

E. Vehicle and Equipment Fueling – A variety of BMPs can be implemented during fueling of vehicles and equipment to prevent pollution. The contractor shall inform the resident engineer as to which BMPs will be used on the project. The contractor shall inform the resident engineer how (s)he will be informing his/her employees of these BMPs (i.e. signs, training, etc.). Below are a few examples of these BMPs:
   - Containment
   - Spill Prevention and Control
   - Use of Drip Pans and Absorbents

- Automatic Shut-Off Nozzles
- Topping Off Restrictions
- Leak Inspection and Repair

F. Vehicle and Equipment Maintenance – On site maintenance must be performed in accordance with all environmental laws such as proper storage and no dumping of old engine oil or other fluids on site.

VI. Failure to Comply:

Failure to comply with any provisions of this Storm Water Pollution Prevention Plan will result in the implementation of a National Pollutant Discharge Elimination System/Erosion and Sediment Control Deficiency Deduction against the contractor and/or penalties under the NPDES permit which could be passed onto the contractor.

Illinois Department of Transportation

Contractor Certification Statement

The Resident Engineer is to make copies of this form and every contractor and sub-contractor will be required to complete their own separate form.

Route	FAU1004	Marked Rt.	BLUFF AVENUE
Section	08-00079-03-FP	Project No.	M9003(514)
County	COOK	Contract No.	63353

This certification statement is part of the Storm Water Pollution Prevention Plan for the project described below, in accordance with General NPDES Permit No. ILR10 issued by the Illinois Environmental Protection Agency.

I certify under penalty of law that I understand the terms of the general National Pollutant Discharge Elimination System (NPDES) permit (ILR 10) that authorizes the storm water discharges associated with industrial activity from the construction site identified as part of this certification.

In addition, I have read and understand all of the information and requirements stated in the Storm Water Pollution Prevention Plan for the above mentioned project; I have provided all documentation required to be in compliance with the ILR10 and Storm Water Pollution Prevention Plan and will provide timely updates to these documents as necessary.

☐ Contractor

☐ Sub-Contractor

Print Name	Signature
Title	Date
Name of Firm	Telephone
Street Address	City/State/ZIP

PAVEMENT AND SOIL INVESTIGATION REPORT

Proposed Bluff Avenue Improvements and Washington Avenue Utility Construction

PREPARED FOR

Village of LaGrange
c/o Heuer & Associates
Mr. Thomas A. Heuer, P.E.
9600 47th Street
McCook, Illinois 60525

Prepared By

CGMT, Inc.

May 30, 2006

Construction & Geotechnical Material Testing, Inc.

762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

May 30, 2006

Village of LaGrange
c/o Heuer & Associates
Mr. Thomas A. Heuer, P.E.
9600 47th Street
McCook, Illinois 60525

RE: Report of Pavement Investigation and Utility Construction
Proposed Bluff Ave. and Washington Ave.
LaGrange, Illinois
CGMT Project No. 06G0162

Dear Mr. Heuer:

Construction & Geotechnical Testing Materials, Inc. has completed the pavement investigation within the proposed Bluff Avenue pavement improvements and Washington Avenue utility construction, in LaGrange, Cook County, Illinois.

The existing pavements typically consist of a variable thickness of bituminous concrete (hot mix asphalt or HMA) surface course over a Portland cement concrete base course.

Coring activities were performed during the week of April 3, 2006. CGMT mobilized a drill rig to the project area to collect samples of pavement and the underlying soil along Bluff Ave, and soil borings drilled to refusal for the Washington Ave storm water sewer.

The report of the investigation including summaries of our findings follows this cover letter. Please do not hesitate to contact our offices if you have any questions regarding this investigation or any of the information provided in the report.

Respectfully,
CONSTRUCTION & GEOTECHNICAL MATERIAL TESTING, INC.

Mark Waxali, P.E.
Project Engineer

MARK Z. WAXALI
062-050947
LICENSED
PROFESSIONAL
ENGINEER
ILLINOIS

EXP: 11/2007

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PAVEMENT AND SOIL INVESTIGATION REPORT
PROPOSED BLUFF AVENUE IMPROVEMENTS AND WASHINGTON AVENUE UTILITY CONSTRUCTION
LaGrange, Illinois

May 30, 2006

1.0 INTRODUCTION

Construction & Geotechnical Material Testing, Inc. (CGMT) has completed a pavement and soil investigation for the proposed Bluff Avenue reconstruction and the Washington Avenue utility installation (collectively referred to as the 'improvements') located in LaGrange, Illinois. The proposed improvements are for the Bluff Avenue alignment bounded Burlington Avenue to the north and Benton Avenue to the south. Seven soil borings extending to depths of six feet below the existing pavement surface were drilled on the proposed project site between April 4 and April 6, 2006. Three additional borings extending to depths of 17 to 23 feet were drilled on Washington Avenue between Cossitt Avenue and Maple Avenue, the proposed alignment of the utility construction. A diagram identifying the approximate locations of the soil borings is included with this report as Attachment 1.

The purposes of this report are to describe the existing pavement and soil conditions, to document soil characteristics and strata thicknesses encountered at the boring locations, and to provide recommendations for the planned improvements.

2.0 PROJECT DESCRIPTION

The improvements are reportedly to consist of the removal and replacement of the existing pavement. The project may also include upgrading the surface water drainage system currently present on Bluff Avenue. The Washington Avenue utility installation is reportedly to consist of the installation of a storm water sewer. Details associated with the storm water sewer design were not made available to CGMT.

3.0 SUBSURFACE EXPLORATION AND LABORATORY TESTING

CGMT scheduled a utility location within the alignment of the proposed improvements prior to initiating any intrusive drilling activities, as required by the Illinois state law, to

verify that no conflicts existed between the boring locations and subsurface utilities. Intrusive activities associated with the subsurface investigation were initiated after the utility locate had been completed by the participating utility companies.

3.1 Subsurface Exploration

The boring locations were identified and staked in the field by Heuer and Associates (Heuer) personnel. Heuer also provided CGMT with the boring location plan.

Prior to advancing each of the Bluff Avenue borings, CGMT collected core samples of pavement materials using a Milwaukee 20-amp two-speed coring motor with 4.25" O.D. thin-wall diamond masonry bits. The test cores were labeled, placed in individual containers and delivered to the CGMT laboratory for further review and detailed condition assessments. Detail descriptions of the cores are provided in Attachment 2.

The soil borings were drilled by CGMT between April 4 and April 6, 2006 using a truck-mounted rotary drilling rig (CME 45C). The borings were advanced using continuous flight, hollow stem augers. Representative soil samples were obtained using a 2-inch diameter split-spoon sampler and procedures in general accordance with ASTM Specification D-1586 for performing Standard Penetration Tests in soil. In the split-spoon sampling procedure, a standard 2-inch O.D. (outside diameter) split-spoon sampler is driven into the ground with a 140 pound hammer falling a distance of 30 inches. The number of blows required to advance the sampling spoon the last 12 inches of a normal 18 inch penetration is considered the standard penetration resistance value (N). These values are indicated on the boring logs at the depths of occurrence. Representative samples were collected from the split-spoon sampler, placed in glass jars, sealed, labeled, and transported to the CGMT geotechnical laboratory for testing and classification.

Boring logs of each boring were prepared by the drill crew. These logs included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. Final boring logs included with this report (Attachment 3) represent an interpretation of the field logs and include modifications based on laboratory observation and tests of selected soil samples.

3.2 Laboratory Testing

Laboratory tests were performed on a number of soil samples collected during the field investigation. These tests consisted of the following:

- Moisture content in accordance with ASTM D2216 – performed on all soil samples collected.
- Atterberg limits tests in accordance with ASTM D4318 – performed on three samples from borings made within the utility construction alignment.
- Moisture-Density relationship (Standard Proctor Test) in accordance with AASHTO T 99 – performed on one sample collected from the Bluff Avenue alignment.
- Grain Size analysis in accordance with ASTM D422 – performed on one sample from the Bluff Avenue alignment.
- Illinois Bearing Ratio performed in accordance with ASTM D1883 – performed on one sample from the Bluff Avenue alignment.
- Calibrated hand-held penetrometer was used to estimate the approximate unconfined compressive strength of the native cohesive soil samples.

Laboratory test results are provided in Attachment 4.

The calibrated penetrometer was correlated with unconfined compression tests and provides a better estimate of soil consistency than visual examination and standard penetration test data.

As part of the testing program, the samples were examined in the laboratory and classified in accordance with the attached General Notes and the Unified Soil Classification System based on the material's texture and plasticity. The estimated group symbols for the Unified Soil Classification System are shown on the boring logs, and a brief description of the Unified System is included with this report in Attachment 5.

4.0 SITE AND SUBSURFACE CONDITIONS

4.1 Site Description

The proposed project consists of planned pavement improvements on Bluff Avenue from Burlington Avenue to Benton Avenue, in LaGrange, Cook County, Illinois. The improvements are reportedly to consist of reconstruction of the existing pavement system. Additionally, the construction of a storm water sewer is planned for a portion of Washington Avenue.

The immediate project area is surrounded by a combination of generally mature medium-density residential units. Commercial development is present within portions of the east side of Bluff Road.

4.2 Pavement Conditions

The pavement within the project area consists essentially of either a single or multiple layers of asphalt overlying either a Portland Cement Concrete (PCC) or an aggregate base course. The individual pavement core data obtained from the locations identified on the Boring Location Diagram are presented in detail in Attachment 2. A concrete curb and gutter with storm drain structures provides surface water drainage for the project area pavements.

The pavements display various patterns and degrees of distress, ranging from "alligator" cracking to transverse and random, dendritic cracking. The mechanisms of cracking likely range from aging and oxidation under sunlight to reflection cracking of the underlying pavement layers, particularly where a Portland cement concrete base course is present.

The bond between the various bituminous material layers in all of the test cores was generally good. Where the Hot Mix Asphalt (HMA) wearing course was underlain by a concrete base course, the bond between the overlying HMA wearing course and the concrete was typically poor.

The bituminous concrete courses (surface and binder) typically ranged between 1.31 inches at B-01 to 5.43 inches B-09 thick, over either PCC or gravel (IDOT coarse aggregate CA-6).

A PCC layer was encountered at all but two locations (B-09 and B-10). Where encountered, the PCC was typically in good condition containing trace to some amounts of medium to large voids. PCC ranged in thickness from 7.56 inches at B-04 to 9.03 inches at B-01. In all cases the PCC contained reinforcement wire mesh.

4.3 Soil Conditions – Bluff Avenue

All borings were advanced to a depth of approximately 6 feet beneath the top of the pavement. Topsoil was encountered at all locations except B-01, B-03, and B-04. The topsoil typically overlies a brown and gray to brown silty clay soil. This silty clay typically possessed moisture content percentages ranging from the mid teens to low 20s.

This topsoil is typically subject to medium to high pumping/rutting when saturated and exposed to traffic wheel loadings, and have a high to very high frost potential.

Conditions encountered at each boring location are indicated on the attached soil boring logs. Stratification boundaries on the boring logs represent the approximate location of changes in soil types. The transition between soil types is actually gradual. Based on the results of the borings, subsurface conditions on the project site can be summarized as follows.

4.4 Soil Conditions – Washington Avenue

Four borings (B-08, B-09, B-10, and B-11) were made within the planned alignment of the storm water sewer. Asphalt ranging in thickness from 1.5 to 5.3 inches, overlying IDOT CA-6 aggregate was present at all locations except B-08. Remnants of the original topsoil were present beneath the pavement materials at boring B-08, B-09 and B-11. This topsoil appears to have been removed as part of pavement construction at the other boring location.

The immediate subgrade soils, below the buried topsoil consist of a brown and gray silty clay. This material is generally of a very stiff consistency possessing unconfined compressive strengths of 2.5 to 3.5 tons per square foot. This silty clay typically extended to depths of approximately 5.5 feet below existing ground surface. This soil type exhibited moisture contents ranging from 18.5 to 19.8 percent.

Noncohesive soil types were encountered at all three boring locations beneath the silty clay soil. These materials, having Unified Soil Classification System designations of SC,

SM, and SW were present to the end of each soil boring. These materials were typically of dense to very dense in consistency (as illustrated by the 'N' values obtained during the SPT tests). The 'N' values were found to increase with depth.

All borings made within this sewer alignment were advanced until auger refusal occurred (depths of 17, 22, 18, and 23 feet at borings B-08, B-09, B-10, and B-11, respectively).

Detailed descriptions of the subsurface conditions encountered at the individual boring locations are presented in the boring logs that are included in Attachment 3. Results of laboratory testing are also presented on the boring logs.

4.5 Subsurface Water Conditions

The borings were monitored while drilling and after completion for the presence and level of groundwater. No water was encountered in the shallow borings while advancing or immediately after the completion of all borings. Water was encountered in the deep borings made within the storm water sewer alignment, between 11 and 12 feet below surface. In all cases water was encountered within a non cohesive soil type.

It should be recognized that fluctuations of the groundwater table may occur due to seasonal variations in the amount of rainfall, runoff and other factors not evident at the time the borings were performed. Also, trapped or "perched" water can occur in the more pervious sand or silt seams/layers often found within the cohesive fill and/or native deposits. Therefore, groundwater levels during construction or at other times in the life of the structures may be different than indicated on the boring logs. The possibility of groundwater level fluctuations should be considered when developing the design and construction plans for the project.

5.0 ENGINEERING ANALYSIS AND RECOMMENDATIONS

5.1 Pavement Construction Considerations

The cohesive organic soils encountered at the majority of the core locations are reportedly of medium to high (F3 to F4) frost susceptibility (referenced in the Soil Survey of DuPage and Part of Cook Counties, Illinois, USDA, SCS, May 1979, S012.) When the silty clay soils are saturated and disturbed, such as by construction traffic, they will "pump" and exhibit highly unstable conditions. The black silty clay (former topsoil) soil encountered

beneath the pavement materials should be undercut and replaced with free draining granular material.

The brown and gray clayey silt soil typically encountered beneath the topsoil is a structurally suitable subgrade material for roadway construction. The roadway subbase should be constructed of free draining granular material in accordance with the Illinois Department of Transportation specifications.

Shallow excavations made within the brown and gray silty clay for sewers, etc., along Bluff Avenue are expected to maintain near vertical slopes, however, proper sloping, or bracing of excavations must be provided to adequately protect construction personnel and adjacent structures/properties in accordance with legal and safety requirements. **Slopes for excavations should be protected, following the appropriate OSHA (Occupational Safety and Health Administration, 29 CFR PART 1926) regulations, state and local guidelines and governing statutes/ordinances as a minimum.**

Illinois Department of Transportation (IDOT) Bureau of Design recommends an Illinois Bearing Ratio (IBR) value of 2 for soils classed as silty clays of medium to high plasticity. The laboratory test performed on a collected soil sample from within the Bluff Avenue alignment indicates that the IBR value for the brown silty clay soil is 2.7. Pavement design should be performed based on this laboratory derived value.

5.2 Utility Construction Considerations

Details associated with the proposed storm water sewer (invert elevation, depth of the sewer, pipe diameters, pipe material, etc.) were not provided to CGMT at the time of the field investigation.

The sewer should be installed in trenches excavated to the designed elevations. Bedding materials conforming to the engineer's specifications should be placed a minimum of 6 inches below the invert elevations of piping. Select backfill materials conforming to IDOT CA-6 should be placed above the pipe. This material should be placed in 6-inch lifts and hand tamped until 12-inches of CA-6 has been placed over the pipe. Thereafter compaction may be performed using mechanical means.

Backfill materials used to backfill excavated trenches to the required elevations should be clean soil free of debris and cobbles greater than 3-inches in diameter. The placement and compaction of backfill materials shall be performed in a manner that prevents damage to the installed sewer pipe.

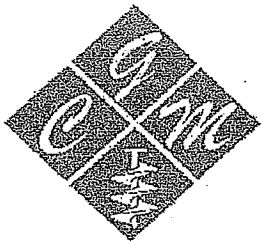
Excavations along the Washington Avenue sewer alignment will be made within noncohesive soils. These soils cannot be benched. These excavations cannot be sloped because of the spatial constraints placed by the presence of utilities and properties within relative close proximity of the planned sewer location. As such, the use of trench boxes or other appropriate shoring techniques should be designed and implemented to facilitate sewer installation while maintain compliance with OSHA and other state and local guidelines and regulations. The design of excavations needed to install the proposed sewer is beyond the scope of this report.

Excavations that extend below a depth of 10 feet may require dewatering. The actual excavation depth will dictate dewatering techniques that may be utilized. These techniques may be as simple as the use of mobile submersible pumps installed at strategically located sumps, or an intricately designed series of well points to achieve groundwater drawdown. The design of a dewatering system is beyond the scope of this report.

5.3 Earthwork

The subgrade for the planned pavement installation should be proof rolled. Proof rolling aids in documenting the structural integrity of the completed subgrade and is a means of identifying and delineating soft or disturbed areas that may exist at or near the exposed subgrade level. Unsuitable areas observed at this time should be improved by undercutting and replacement with suitable compacted fill. Proof rolling may be accomplished with a fully loaded, tandem-axle dump truck or other equipment providing an equivalent subgrade loading. A minimum gross weight of 25 tons is recommended for the proof rolling equipment. Proof rolling should be performed in the presence of the Owner's representative and the geotechnical engineer so that unstable subgrade areas may be properly evaluated.

The importation and placement of fill may be necessary to achieve proposed pavement subgrade elevations. Fill materials should be placed and compacted in lifts of 9 inches or



less in loose thickness. Fill placed below the base elevations of subsurface structures such as vaults should be compacted to at least 95% of the material's maximum dry density as determined by a modified Proctor test. All new fill placement and compaction should be observed and tested by a geotechnical engineer.

Upon completion of the filling operation, care should also be taken to maintain the subgrade moisture content prior to pavement construction. If the subgrade should become frozen, desiccated, saturated or disturbed, the affected material should be removed or, in the case where the subgrade becomes saturated, these materials should be scarified, moisture conditioned and recompacted.

Subgrades for supporting the storm water sewer should be inspected prior to the installation of the pipe segments. Unsuitable areas observed after the required excavation has been completed should be by mitigated by undercutting and replacement with suitable compacted fill.

5.4 General Recommendations

All excavations should comply with the requirements of OSHA 29CFR, Part 1926, Subpart P, "Excavations" and its appendices, as well as other applicable codes. This document states that the excavation safety is the responsibility of the contractor. Reference to this OSHA requirement should be included in the project specifications.

6.0 GENERAL COMMENTS

The Owner should allow for the review of existing conditions during construction by a geotechnical engineer. This engineer should provide testing and observation during excavation, grading, and construction phases of the project. The purpose of these services would be to observe and assess the soil conditions encountered during construction, evaluate the applicability of the recommendations presented in this report to the soil conditions encountered, and recommend appropriate changes in design or construction procedures if conditions differ from those described herein.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations which may occur between

borings or across the site. The nature and extent of such variations may not become evident until construction. If variations appear, it will be necessary to reevaluate the recommendations of this report.

The scope of services for this project does not include either specifically or by implication any environmental assessment of the site or identification of contaminated or hazardous materials or conditions. If the owner is concerned about the potential for such contamination, other studies should be undertaken.

The scope of services for this project did not include the design of a shoring system for the proposed sewer installation. **At the time of the preparation of this report details of the planned pavement improvements and details of the sewer installation were not made available to CGMT.**

This report has been prepared for the exclusive use of Heuer and Associates and the Village on LaGrange for specific application to the project discussed herein. The report has been prepared in accordance with generally accepted geotechnical engineering practices. No warranties, either expressed or implied, are intended or made. In the event that changes in the nature, design, or location of the project as outlined in this report, are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed by the certifying engineer, and the certifying engineer either verifies or modifies the conclusions of this report in writing.

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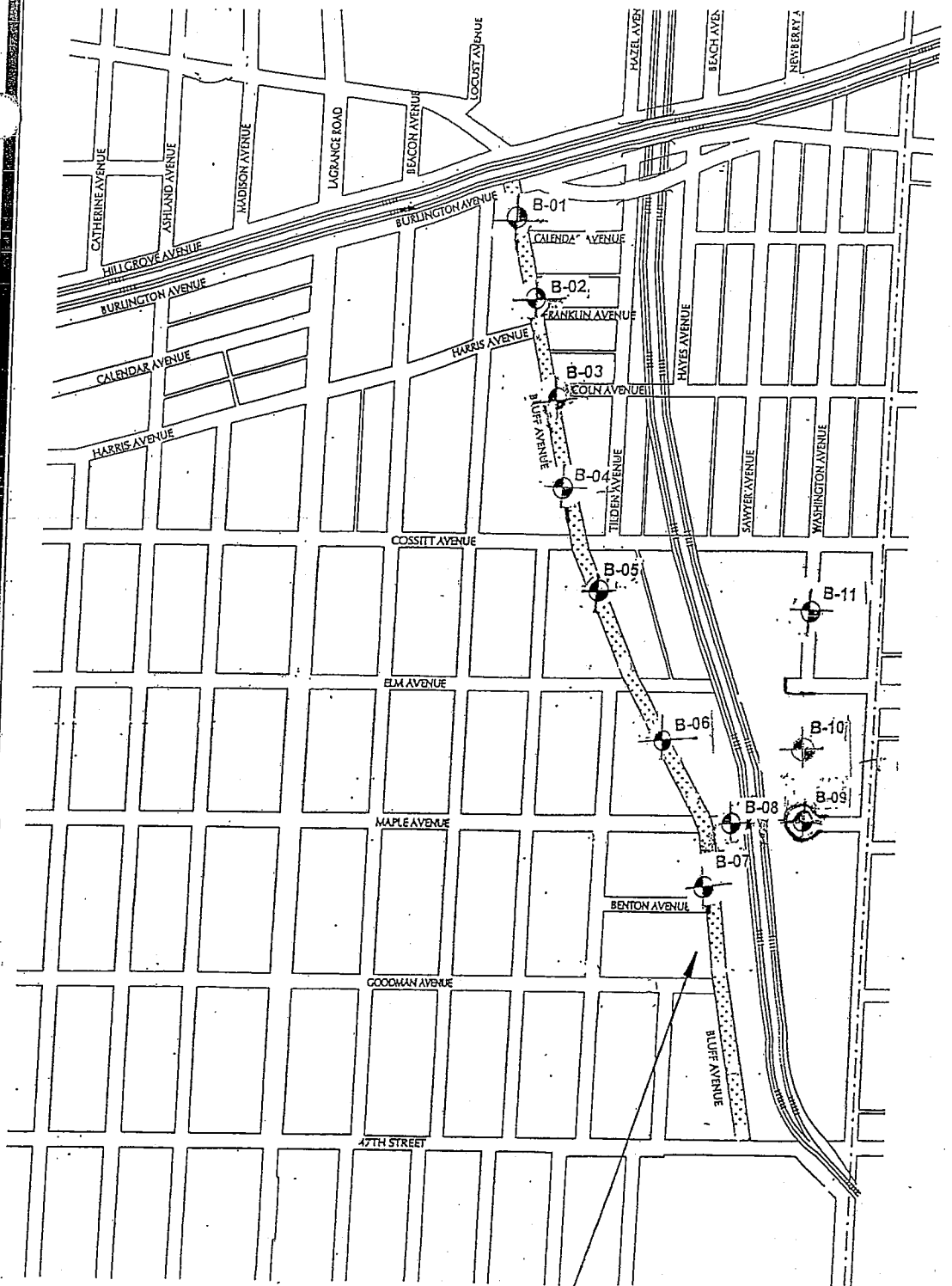
ATTACHMENT 1

Boring Location Plan



Coring and Boring Location Diagram for
Heuer Associates
Bluff Ave. Improvement and Washington Ave. Utility Construction. LaGrange,Illinois

ATTACHMENT 2

Descriptions of Pavement Cores

Detail Descriptions of Cores
Bluff Avenue Investigation
LaGrange, IL
Prepared for Heuer and Associates
May 2006

Core No.	Core Location[1]	Pavement Profile				Total Depth of Core (inches)
		Layer Type	Layer Thickness (inches)	Layer Descriptions	Unconfined Compressive Strength (tsf)[6, 7]	
B-01	North of Calendar Ave.	HMA - Surface Course	1.31	Surface course, trace small to medium voids, poor bond to PCC.		10.34
		PCC	9.03	Reinforcement wire mesh present 3.25" from top of layer. Some medium to large voids.		
		Soil	--	Brown and gray silty clay, trace medium to fine sand, stiff, low plasticity, moist (CL).	1.5	
B-02	North of Ranklin Ave.	HMA - Surface Course	1.55	Surface course, trace small to medium voids, poor bond to PCC.		9.57
		PCC	8.02	Reinforcement wire mesh present 3.75" from top of layer. Trace small voids.		
		Soil	--	Dark brown and black silty clay, trace coarse to fine sand, stiff, low plasticity, moist (CL)	1.5	
B-03	South of Lincoln Ave.	HMA - Surface Course	1.48	Surface course, trace small to medium voids, poor bond to PCC.		9.10
		PCC	7.62	Reinforcement wire mesh present 3.75" from top of layer. Trace small voids.		
		Soil	--	Brown and gray silty clay, trace medium to fine sand, stiff to very stiff, low plasticity, moist (CL).	2.0	
B-04	North of Cossitt Ave.	HMA - Surface Course	1.70	Surface course, trace small to medium voids, poor bond to lower layer.		9.26
		PCC	7.56	Reinforcement wire mesh present 3.75" from top of layer. Trace small to medium voids.		
		Soil	--	Brown and gray silty clay, trace medium to fine sand, stiff, low plasticity, moist (CL).	1.5	
B-05	South of Cossitt Ave.	HMA - Surface Course	1.62	Surface course, trace small to medium voids, good bond to binder course.		12.16
		HMA - Binder Course	2.68	Binder course, trace small voids, poor bond to PCC.		
		PCC	7.86	Reinforcement wire mesh present 4.5" from top of layer. Trace small to medium voids.		
		Soil	--	Black silty clay, trace coarse to fine sand, stiff to very stiff, low plasticity, moist. (CL), topsoil.	2.5	
B-06	South of Elm Ave.	HMA - Surface Course	1.80	Surface course, some small to medium voids, good bond to binder course.		12.73
		HMA - Binder Course	2.48	Binder course, trace small voids, poor bond to PCC.		
		PCC	8.45	Reinforcement wire mesh present 5.5" from top of layer. Trace small to medium voids.		
		Soil	--	Black silty clay, trace coarse to fine sand, stiff to very stiff, low plasticity, moist. (CL), topsoil.	2.5	
B-07	North of Benton Ave.	HMA - Surface Course	1.53	Surface course, some small to medium voids, good bond to binder course.		11.91
		HMA - Binder Course	2.08	Binder course, no voids, poor bond to PCC.		
		PCC	8.30	Some medium to large voids.		
		Soil	--	Black silty clay, trace coarse to fine sand, stiff, low plasticity, moist. (CL), topsoil.	1.5	

Detail Descriptions of Cores
Bluff Avenue Investigation
LaGrange, IL
Prepared for Heuer and Associates
May 2006

Core No.	Core Location[1]	Pavement Profile				Total Depth of Core (inches)
		Layer Type	Layer Thickness (inches)	Layer Descriptions	Unconfined Compressive Strength (tsf)[6,7]	
B-09	Maple Ave.	HMA - Surface Course	1.98	Surface course, some small to medium voids, good bond to binder course.		12.93
		HMA - Binder Course	3.45	Binder course, trace small voids, poor bond to gravel.		
		Gravel	7.50	Characteristic IDOT CA-6 aggregate.		
		Soil	--	Dark brown and black silty clay, trace coarse to fine sand, stiff to very stiff, low plasticity, moist (CL)	2.5	
B-10	North of Maple Ave.	HMA - Surface Course	1.50	Surface course, some small to medium voids, good bond to binder course.		11.47
		HMA - Binder Course	1.97	Binder course, trace small voids, poor bond to gravel.		
		Gravel	8.00	Characteristic IDOT CA-6 aggregate.		
		Soil	--	Brown and gray silty clay, trace medium to fine sand, stiff to very stiff, low plasticity, moist (CL).	2.8	

Notes:

1. Core locations depicted on drawings.
2. Medium to fine voids refer to the size of the voids observed along the side of the extracted core.
3. HMA means Hot Mix Asphalt.
4. PCC means Portland Cement Concrete.
5. Soil classification based on visual assessment of soil samples collected during field investigation.
6. Unconfined compressive strength measured using a calibrated penetrometer.

ATTACHMENT 3

Soil Boring Logs

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-01
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Asphalt Pavement					
	10"		1.31" of Asphalt , 9.031" P.C.C.					
	1.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, stiff to very stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 13" Recovery	3 4 3	16.2	1.5	Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	2.0							
	3.0			SS-2 2.5 - 4.0 18" Recovery	2 4 4	22.6	3.0	
	4.0							
	5.0			SS-3 4.0 - 6.0 23" Recovery	2 4 6 10	18.0	3.5	
	6.0		End of boring at 6.0 feet.					No water present in boring immediately after drilling. Boring backfilled with soil cuttings immediately after drilling. IDOT means Illinois Department of Transportation.
	7.0							
	8.0							
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
Phone (630) 595-1111 ✦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-02
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (tsf)	Notes & Test Results
			Asphalt Pavement					
	0.0							
	9.5"		1.5" Asphalt, 8" P.C.C.					
	1.0		Brown and black silty clay, trace coarse to fine sand, trace coarse to fine gravel, stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 12" Recovery	2 3 4	18.6	1.5	Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	2.0							
	2.7							
	3.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-2 2.5 - 4.0 18" Recovery	2 4 5	22.8	2.5	
	4.0							
	5.0			SS-3 4.0 - 6.0 18" Recovery	2 4 5 9	18.8	3.5	
	6.0		End of boring at 6.0 feet.					No water present in boring immediately after drilling.
	7.0							Boring backfilled with soil cuttings immediately after drilling.
	8.0							P.C.C. means Portland Cement Concrete.
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
Phone (630) 595-1111 ✦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-03
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (Tsf)	Notes & Test Results
	0.0		Asphalt Pavement					
	9.1"		1.5" Asphalt and 7.6" P.C.C.					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer:
	1.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, stiff to very stiff, low plasticity, moist, (CL)	SS-1 1.0 - 2.5 17" Recovery	4 4 4	19.1	2.0	
	2.0							
	3.0			SS-2 2.5 - 4.0 17" Recovery	3 7 5	23.4	2.75	
	4.0							
	5.0			SS-3 4.0 - 5.5 16" Recovery	2 19 20	12.6	2.0	SS-3 driven on a piece of coarse gravel at 4.5 feet.
	5.5		End of boring at 5.5 feet.					No water present in boring immediately after drilling.
	6.0							
	7.0							Boring backfilled with soil cuttings immediately after drilling.
	8.0							
	9.0							P.C.C. means Portland Cement Concrete.
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-04
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Counts	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Asphalt Pavement					
	9.3"		1.7" Asphalt and 7.6" P.C.C.					
	1.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, stiff to very stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 12" Recovery	3 4 5	20.2	1.5	Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	2.0							
	3.0			SS-2 2.5 - 4.0 17" Recovery	3 5 7	21.6	2.25	
	4.0							
	5.0			SS-3 4.0 - 5.5 16" Recovery	2 9 12	14.7	2.0	
	5.5		End of boring at 5.5 feet.					No water present in boring immediately after drilling.
	6.0							
	7.0							Boring backfilled with soil cuttings immediately after drilling.
	8.0							
	9.0							P.C.C. means Portland Cement Concrete.
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-05
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Asphalt Pavement					
	12.2"		4.3" Asphalt, 7.9" P.C.C.					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	2.0		Black silty clay, trace coarse to fine sand, very stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 6" Recovery	7 8 4	12.1	2.5	SS-1 driven on a piece of coarse gravel at depth of 13 inches.
	2.5 3.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-2 2.5 - 4.0 15" Recovery	3 5 7	19.4	3.0	
	4.0 5.0		Gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-3 4.0 - 6.0 16" Recovery	2 3 3 7	19.8	2.75	No water present in boring immediately after drilling.
	6.0		End of boring at 6.0 feet.					Boring backfilled with soil cuttings immediately after drilling.
	7.0							P.C.C. means Portland Cement Concrete.
	8.0							
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-06
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
			Asphalt Pavement					
	0.0		4.3" Asphalt, 8.4" P.C.C.					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	12.5"		Black silty clay, trace coarse to fine sand, very stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 6" Recovery	3 5 5	13.7	2.75	
	2.0							
	2.5			SS-2 2.5 - 4.0 12" Recovery	3 4 4	22.4	2.75	
	3.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)					
	4.0			SS-3 4.0 - 6.0 18" Recovery	2 7 5 5	26.3	2.25	
	5.0							
	6.0		End of boring at 6.0 feet.					No water present in boring immediately after drilling.
	7.0							Boring backfilled with soil cuttings immediately after drilling.
	8.0							P.C.C. means Portland Cement Concrete.
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft)
During Drilling : None
Immediately After Drilling : None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: **B-07**
Date: Thursday, April 06, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No., Depth Interval (Ft), Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
			Asphalt Pavement					
	0.0		3.6" Asphalt, 8.3" P.C.C.					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Black silty clay, trace fine sand, stiff, low plasticity, moist. Topsoil (CL)	SS-1 1.0 - 2.5 8" Recovery	4 4 4	16.4	1.5	
	2.0							
	2.5		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-2 2.5 - 4.0 14" Recovery	2 4 5	22.2	2.75	
	3.0							
	4.0		Brown silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-3 4.0 - 6.0 16" Recovery	4 6 10 11	21.0	4.0	
	5.0							
	6.0		End of boring at 6.0 feet.					No water present in boring immediately after drilling.
	7.0							Boring backfilled with soil cuttings immediately after drilling.
	8.0							P.C.C. means Portland Cement Concrete.
	9.0							
	10.0							
	11.0							
	12.0							
	13.0							
	14.0							
	15.0							
	16.0							
	17.0							
	18.0							
	19.0							
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)	
During Drilling	: None
Immediately After Drilling	: None

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: **B-08**
Date: Wednesday, April 05, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Asphalt Pavement					
			IDOT CA-6 aggregate					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Black silty clay, trace fine sand, stiff, low plasticity, moist. Topsoil (CL)	SS-1 1.0 - 2.5 11" Recovery	3 4 5	20.9	1.5	
	2.0							
	2.75							IDOT means Illinois Department of Transportation.
	3.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-2 3.5 - 5.0 14" Recovery	3 4 6	18.9	4.0	
	4.0							
	5.0							
	5.5							
	6.0		Brown clayey silt, trace coarse to fine sand, trace coarse to fine gravel, medium dense to dense, poorly graded, wet. (ML)	SS-3 6.0 - 7.5 16" Recovery	7 11 25	39.0		SS-3 driven on a piece of coarse gravel at 7.0 feet.
	7.0							
	8.0		Gray silty coarse to fine sand, some coarse to fine gravel, medium dense, poorly graded, wet. (SM)	SS-4 8.5 - 10.0 12" Recovery	6 9 12	8.4		
	9.0							
	10.2							
	11.0		Gray coarse to fine sand and gravel, well graded, medium dense to very dense, saturated. (SW)	SS-5 11.0 - 12.5 14" Recovery	7 27 29	8.3		SS-5 driven on a piece of coarse gravel at 11.5 feet.
	12.0							
	13.0							
	14.0			SS-6 13.5 - 15.0 14" Recovery	4 8 21	10.6		
	15.0							
	16.0			SS-7 16.0 - 17.5 18" Recovery		8.3		
	17.0		End of boring at 17.0 feet.					Auger refusal occurred at 17.0 feet.
	18.0							
	19.0							Boring backfilled with soil cuttings immediately after drilling.
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft)
During Drilling : 14.0 feet
Immediately After Drilling : 12.0 feet

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.

762 Larsen Lane, Bensenville, Illinois 60106
Phone (630) 595-1111 ✦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-09
Date: Wednesday, April 05, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (In)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0		Asphalt Pavement					
			5.3" of Asphalt , 7.5" of IDOT CA-6 aggregate					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	12.3"		Black and brown silty clay, trace fine sand, very stiff, low plasticity, moist. Topsoil (CL)	SS-1 1.0 - 2.5 9" Recovery	3 5 8	22.2	3.0	IDOT means Illinois Department of Transportation.
	2.0							
	2.75							
	3.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-2 3.5 - 5.0 12" Recovery	3 4 5	19.8	3.0	**SS-2** LL = 46.0 PL = 30.2 PI = 15.8
	4.0							
	5.2							
	6.0		Brown silty coarse to fine sand , some coarse to fine gravel, dense, well graded, wet. (SM)	SS-3 6.0 - 7.5 14" Recovery	13 27 15	8.4		SS-3 driven on a piece of coarse gravel at 6.5 feet.
	7.0							
	8.0		Gray silty clay, some coarse to fine sand, some coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-4 8.5 - 10.0 10" Recovery	7 10 9	9.3	3.5	
	9.0							
	10.2							
	11.0		Gray clayey coarse to fine sand and coarse to fine gravel, well graded, dense to very dense, saturated. (SC)	SS-5 11.0 - 12.5 10" Recovery	10 22 19	7.1		SS-5 driven on a piece of coarse gravel at 11.5 feet.
	12.0							
	13.0							
	14.0			SS-6 13.5 - 15.0 15" Recovery	7 16 22	9.6		
	15.0							
	16.0			SS-7 16.0 - 17.5 16" Recovery	21 25 25	6.5		
	17.0							
	18.0							
	19.0			SS-8 18.5 - 20.50 18" Recovery	25 25 17	5.4		
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : 12.0 feet
Immediately After Drilling : 10.0 feet

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1119

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-09
Date: Wednesday, April 05, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Gray clayey coarse to fine sand and coarse to fine gravel, well graded, very dense, saturated. (SC)					
	21.0							
	22.0		End of boring at 22 feet.					Auger refusal occurred at 22.0 feet.
	23.0							
	24.0							Boring backfilled with soil cuttings immediately after drilling.
	25.0							
	26.0							
	27.0							
	28.0							
	29.0							
	30.0							
	31.0							
	32.0							
	33.0							
	34.0							
	35.0							
	36.0							
	37.0							
	38.0							
	39.0							
	40.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : 12.0 feet
Immediately After Drilling : 10.0 feet

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-10
Date: Tuesday, April 04, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (tsf)	Notes & Test Results
	0.0		Asphalt Pavement					
	11.5"		3.5" of Asphalt , 8" of IDOT CA-6 aggregate					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	1.0		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)	SS-1 1.0 - 2.5 9" Recovery	3 5 6	18.5	2.75	**SS-1** LL = 36.0 PL = 24.5 PI = 11.5
	2.0							
	3.0							
	4.0			SS-2 3.5 - 5.0 15" Recovery	2 5 7	—	3.5	
	5.0							IDOT means Illinois Department of Transportation.
	5.5							
	6.0		Gray clayey coarse to fine sand and coarse to fine gravel, well graded, medium dense to dense, wet to saturated. (SC)	SS-3 6.0 - 7.5 18" Recovery	6 16 16	8.6		SS-3 driven on a piece of coarse gravel at 7.0 feet.
	7.0							
	8.0							
	9.0			SS-4 8.5 - 10.0 12" Recovery	6 12 16	7.1		
	10.2							
	11.0			SS-5 11.0 - 12.5 14" Recovery	12 20 25	8.0		
	12.0							
	13.0							
	14.0		Gray coarse to fine sand and gravel, well graded, very dense, saturated. (SW)	SS-6 13.5 - 15.0 14" Recovery	16 29 25	11.2		
	15.0							
	16.0							
	17.0			SS-7 16.0 - 17.5 8" Recovery	16 26 30	7.5		
	18.0		End of boring at 19.0 feet.					Auger refusal occurred at 18.0 feet.
	19.0							Boring backfilled with soil cuttings immediately after drilling.
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : 11.0 feet
Immediately After Drilling : 19.0 feet

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: **B-11**
Date: Wednesday, April 05, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
			Asphalt Pavement					
	0.0		1.5" Asphalt , 5.5" IDOT CA-6 aggregate					Unconfined compressive strength of soil samples estimated using a calibrated penetrometer.
	7"		Black silty clay, trace fine sand, very stiff, low plasticity, moist. Topsoil (CL)	SS-1 1.0 - 2.5 9" Recovery	3 5 7	22.2	3.0	IDOT means Illinois Department of Transportation.
	2.2		Brown and gray silty clay, trace coarse to fine sand, trace coarse to fine gravel, very stiff, low plasticity, moist. (CL)					
	3.0			SS-2 3.5 - 5.0 12" Recovery	3 4 6	19.8	2.5	SS-2 LL = 41.0 PL = 28.7 PI = 12.3
	4.0							
	5.2		Brown clayey silt, trace coarse to fine sand, trace coarse to fine gravel, medium dense, poorly graded, wet. (ML)	SS-3 6.0 - 7.5 14" Recovery	8 11 10	8.4		
	6.0							
	7.0							
	8.0		Gray silty coarse to fine sand, some coarse to fine gravel, medium dense, poorly graded, wet. (SM)	SS-4 8.5 - 10.0 10" Recovery	4 8 14	9.3		
	9.0							
	10.2		Gray coarse to fine sand and coarse to fine gravel, well graded, medium dense, saturated. (SW)	SS-5 11.0 - 12.5 10" Recovery	8 8 12	7.1		
	11.0							
	12.0							
	12.7		Gray clayey coarse to fine sand and coarse to fine gravel, well graded, dense to very dense, saturated. (SC)					
	13.0			SS-6 13.5 - 15.0 15" Recovery	12 16 20	9.6		
	14.0							
	15.0							
	16.0			SS-7 16.0 - 17.5 16" Recovery	16 20 22	6.5		
	17.0							
	18.0							
	19.0			SS-8 18.5 - 20.0 18" Recovery	25 25 17	5.4		
	20.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : 12.0 feet
Immediately After Drilling : 11.0 feet

Soil Boring Log

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
+ Phone (630) 595-1111 + Fax (630) 595-1110

Soil Boring Prepared for:
Heuer and Associates

Boring No.: B-11
Date: Wednesday, April 05, 2006
Project: Bluff Avenue Improvements
LaGrange, IL
Project No.: 06G0162
Boring Location: See Boring Location Plan
Logged By: Mike Patel
Ground Elevation:

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content %	Unconfined Compressive Strength (TSF)	Notes & Test Results
	20.0		Gray clayey coarse to fine sand and coarse to fine gravel, well graded, dense to very dense, saturated. (SC)					
	21.0			SS-9 21.0 - 22.5 18" Recovery	15 30 20	20.2		
	22.0							
	23.0		End of boring at 23 feet.					Auger refusal occurred at 23.0 feet.
	24.0							Boring backfilled with soil cuttings immediately after drilling.
	25.0							
	26.0							
	27.0							
	28.0							
	29.0							
	30.0							
	31.0							
	32.0							
	33.0							
	34.0							
	35.0							
	36.0							
	37.0							
	38.0							
	39.0							
	40.0							

Drilling Contractor: CGMT, Inc.
Drilling Method: 4.25" O.D. H.S.A. Split Spoon Sampling
Drilling Equipment: CME-45C Truck Mounted Drill Rig
REVIEWED BY: Mark Z. Waxali, P.E.

Water Level (Ft.)
During Drilling : 12.0 feet
Immediately After Drilling : 11.0 feet

ATTACHMENT 4

Laboratory Results

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Atterberg Limit Determination

Client: Heuer & Associates
2315 Enterprise Drive - Suite 102
Westchester, Illinois 60154
Mr. Thomas A. Heuer, P.E.

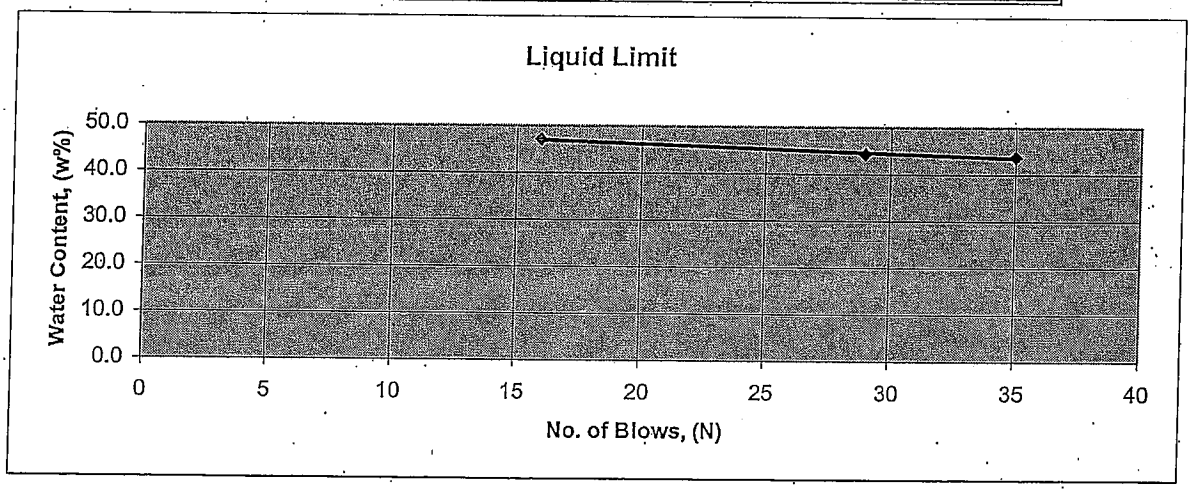
Date of Inspection: 4/14/2006
Inspection By: P. Patel
Project: Bluff Ave. Reconstruction Elm to 47th
LaGrange, IL

Date: 4/17/2006
Project No.: 06G0162

Description of Soil: Brown silty clay with trace of sand
Boring No.: 9 **Sample #:** 2

Liquid Limit Determination

Moisture can and lid number	34	72	63	
Wt. of wet soil + can (grams)	21.67	13.38	16.09	
Wt. of dry soil + can (grams)	15.66	9.84	11.54	
Wt. of can (grams)	1.91	1.86	1.89	
Wt. of dry soil (grams)	13.75	7.98	9.65	0
Wt. of moisture (grams)	6.01	3.54	4.55	0
Water content, (w%)	43.7	44.4	47.2	#DIV/0!
No. of drops (N)	35	29	16	



From the above grave, Liquid Limit = 46.0

Plastic Limit Determination

Moisture can and lid number	47	71	27	
Wt. of wet soil + can (grams)	11.16	11.48	13.21	
Wt. of dry soil + can (grams)	9.01	9.25	10.56	
Wt. of can (grams)	1.85	1.83	1.84	
Wt. of dry soil (grams)	7.16	7.42	8.72	0
Wt. of moisture (grams)	2.15	2.23	2.65	0
Water content, (w%)	30.0	30.1	30.4	#DIV/0!

Plastic Limit: 30.2

Total Readings :
Liquid Limit: 46.0
Plastic Limit: 30.2
Plasticity Index: 15.8

Respectfully submitted,
CONSTRUCTION & GEOTECHNICAL MATERIAL TESTING, INC.
K.C. Patel, President

Construction & Geotechnical Material Testing, Inc.

762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Atterberg Limit Determination

Client: Heuer & Associates
2315 Enterprise Drive - Suite 102
Westchester, Illinois 60154
Mr. Thomas A. Heuer, P.E.

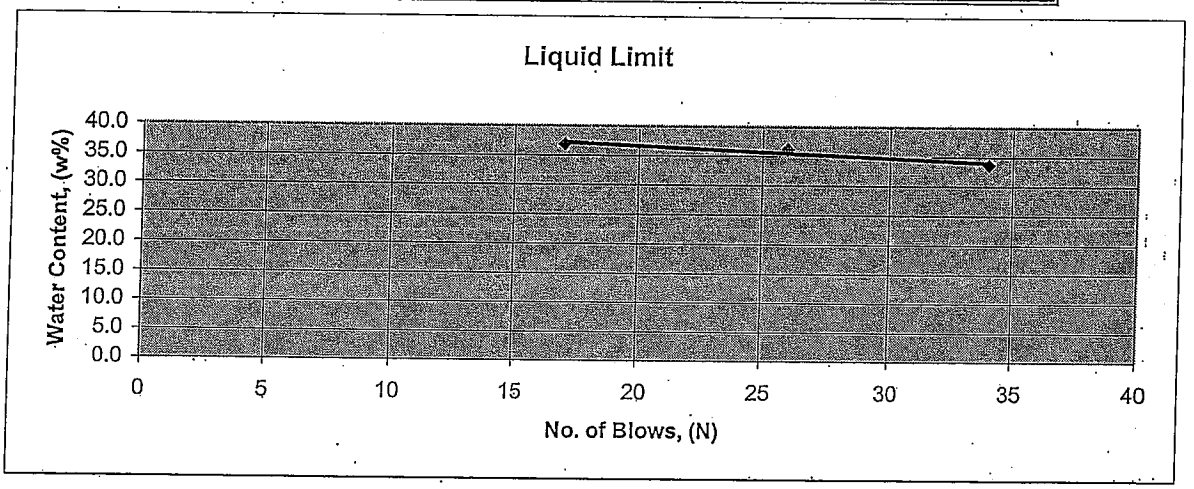
Date of Inspection: 4/14/2006
Inspection By: P. Patel
Project: Bluff Ave. Reconstruction Elm to 47th
LaGrange, IL

Date: 4/17/2006 **Project No.:** 06G0162

Description of Soil: Brown silty clay with trace of sand
Boring No.: 10 **Sample #:** 1

Liquid Limit Determination

Moisture can and lid number	43	86	35	
Wt. of wet soil + can (grams)	13.71	14.21	16.43	
Wt. of dry soil + can (grams)	10.74	10.93	12.51	
Wt. of can (grams)	1.91	1.86	1.89	
Wt. of dry soil (grams)	8.83	9.07	10.62	0
Wt. of moisture (grams)	2.97	3.28	3.92	0
Water content, (w%)	33.6	36.2	36.9	#DIV/0!
No. of drops (N)	34	26	17	



From the above grave, Liquid Limit = 36.0

Plastic Limit Determination

Moisture can and lid number	24	46	83	
Wt. of wet soil + can (grams)	10.46	10.06	10.36	
Wt. of dry soil + can (grams)	8.73	8.46	8.71	
Wt. of can (grams)	1.84	1.85	1.86	
Wt. of dry soil (grams)	6.89	6.61	6.85	0
Wt. of moisture (grams)	1.73	1.6	1.65	0
Water content, (w%)	25.1	24.2	24.1	#DIV/0!

Plastic Limit: 24.5

Total Readings :
Liquid Limit: 36.0
Plastic Limit: 24.5
Plasticity Index: 11.5

Respectfully submitted,
CONSTRUCTION & GEOTECHNICAL MATERIAL TESTING, INC.
K.C. Patel, President

Construction & Geotechnical Material Testing, Inc.

762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Atterberg Limit Determination

Client: Heuer & Associates
2315 Enterprise Drive - Suite 102
Westchester, Illinois 60154
Mr. Thomas A. Heuer, P.E.

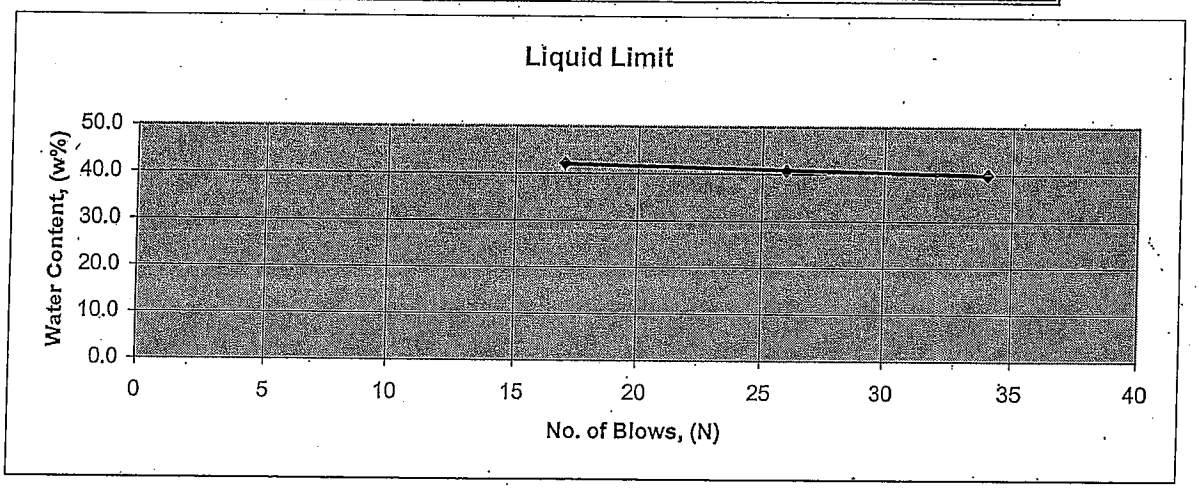
Date of Inspection: 4/14/2006
Inspection By: P. Patel
Project: Bluff Ave. Reconstruction Elm to 47th
LaGrange, IL

Date: 4/17/2006
Project No.: 06G0162

Description of Soil: Brown silty clay with trace of sand
Boring No.: 11 **Sample #:** 2

Liquid Limit Determination

Moisture can and lid number	22	80	44	
Wt. of wet soil + can (grams)	17.61	17.81	20.69	
Wt. of dry soil + can (grams)	13.11	13.18	15.10	
Wt. of can (grams)	1.84	1.82	1.84	
Wt. of dry soil (grams)	11.27	11.36	13.26	0
Wt. of moisture (grams)	4.50	4.63	5.59	0
Water content, (w%)	39.9	40.8	42.2	#DIV/0!
No. of drops (N)	34	26	17	



From the above grave, Liquid Limit = 41.0

Plastic Limit Determination

Moisture can and lid number	24	46	83	
Wt. of wet soil + can (grams)	11.11	12.12	10.07	
Wt. of dry soil + can (grams)	9.04	9.8	8.27	
Wt. of can (grams)	1.86	1.84	1.84	
Wt. of dry soil (grams)	7.18	7.96	6.43	0
Wt. of moisture (grams)	2.07	2.32	1.8	0
Water content, (w%)	28.8	29.1	28.0	#DIV/0!

Plastic Limit: 28.7

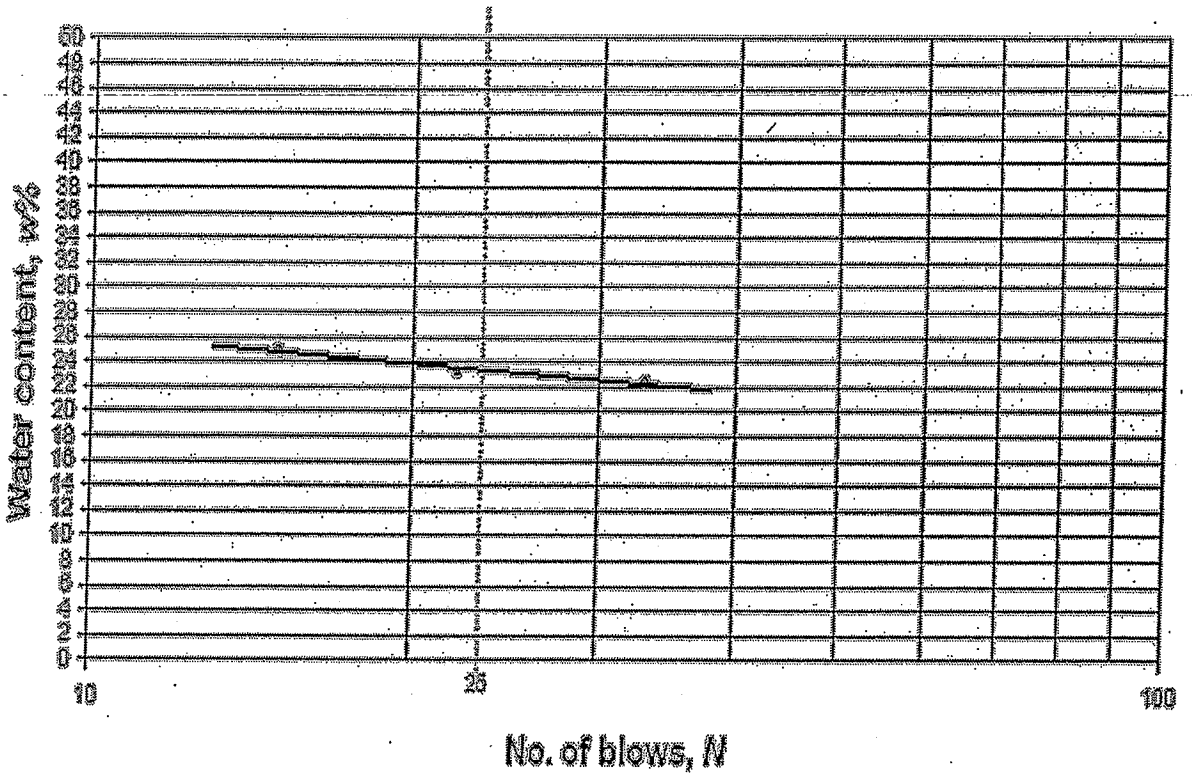
Total Readings :
Liquid Limit: 41.0
Plastic Limit: 28.7
Plasticity Index: 12.3

Respectfully submitted,
CONSTRUCTION & GEOTECHNICAL MATERIAL TESTING, INC.
K.C. Patel, President

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Sample Description	Brown sandy silty clay with trace of gravel

LIQUID LIMIT DETERMINATION



Results

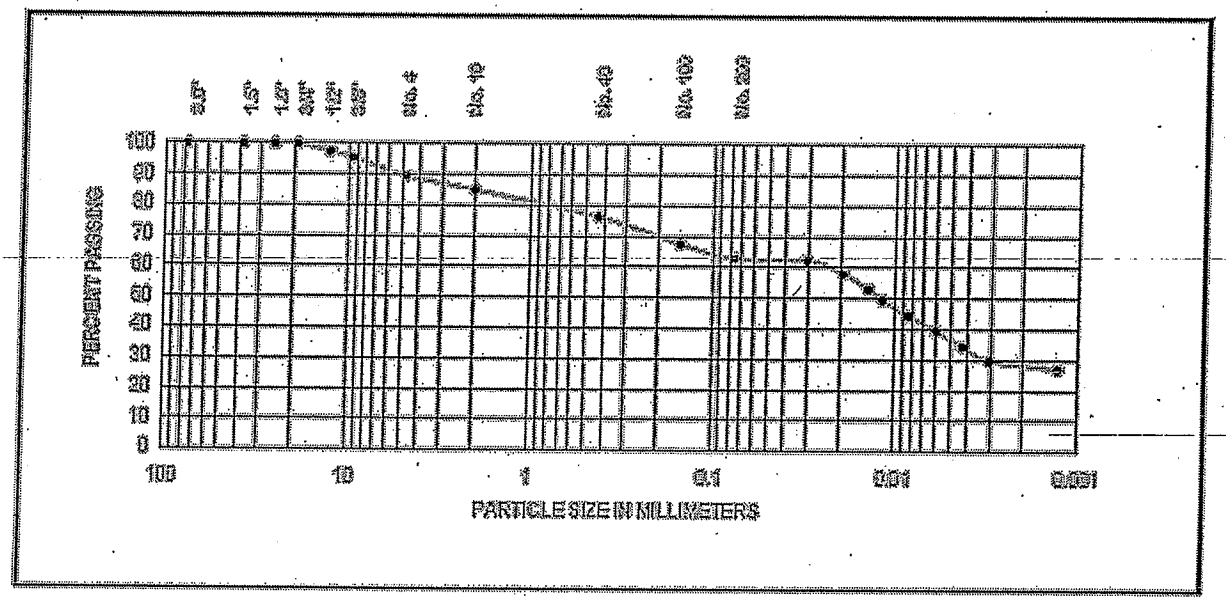
Liquid Limit, LL	23	Plastic Limit, PL	14	Plasticity Index, PI	9

Remarks

Construction & Geotechnical Material Testing, Inc.

762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Sample Description	Brown sandy silty clay with tr.of gravel



			Fines	
% + 3"	% Gravel	% Sand	% Silt	% Clay
0.0	10.4	28.7	26.2	35.7

For coarse-grained soils with <12% Fines	D60(mm)	D30(mm)	D10(mm)	Cu	Cc

Sieve Size	Percent Passing
3.0"	100.0
1.5"	100.0
1.0"	100.0
3/4"	100.0
1/2"	97.5
3/8"	95.0
No. 4	89.6
No. 10	85.0
No. 40	76.3
No. 100	67.6
No. 200	62.9

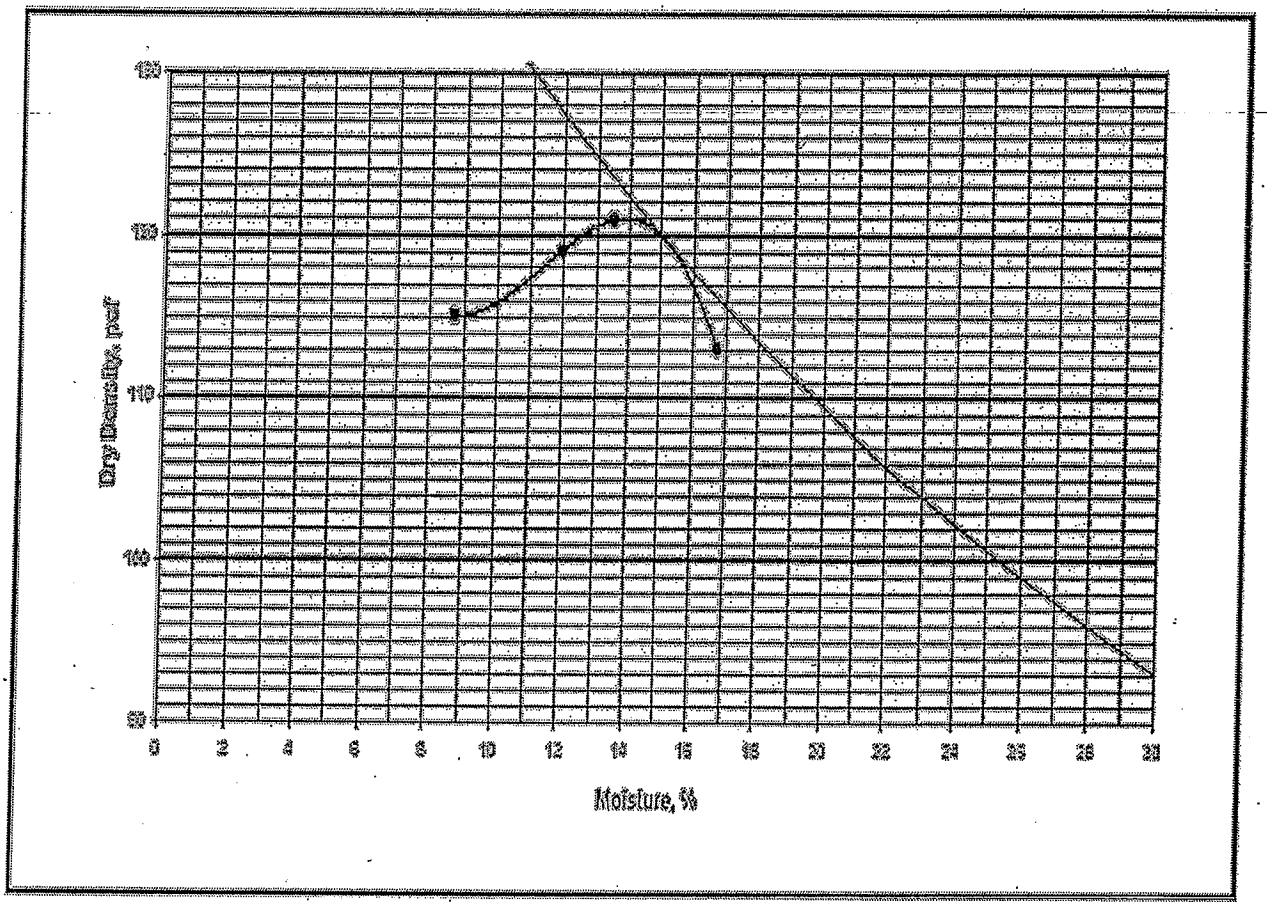
Liquid Limit, L_L	Plastic Limit, PL	Plasticity Index, PI
23	14	9

Soil Classification:	CL
Soil Description:	Sandy lean clay
System:	USCS

Remarks:	
AASHTO Classification : A - 4	

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

Sample Description	Brown sandy silty clay with tr.of gravel								
Type of Proctor	Standard	Method:	A	Mold Size, in.	4	Hammer Weight, lb.	5.5	Drop, in.	12
No. of Layers	3	No. of Blows per Layer		25					



Zero Air Void Curve Specific Gravity: 2.70

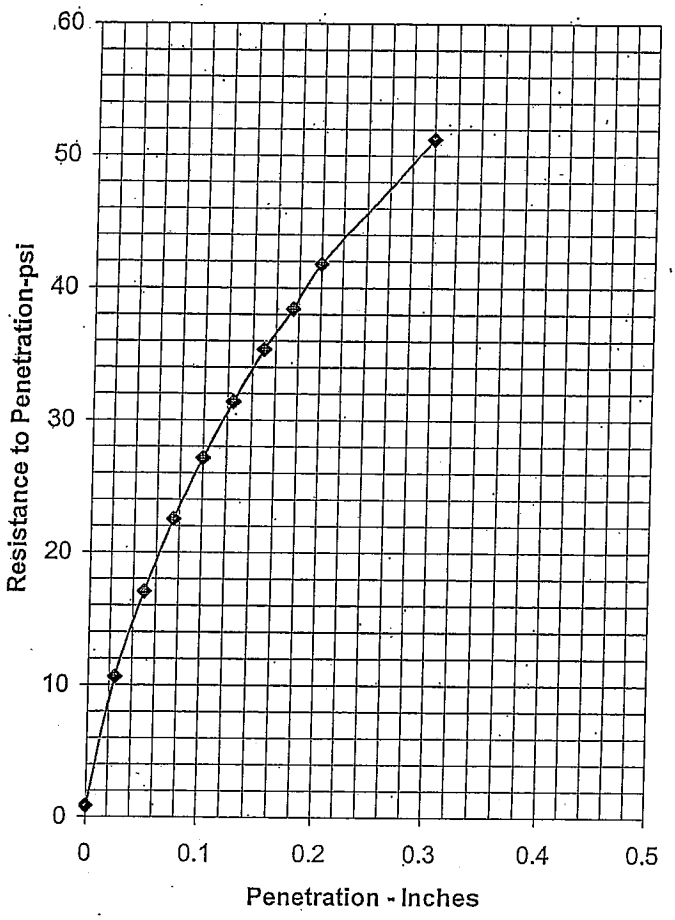
Results					
Maximum Dry Density, pcf	121.1	Optimum Moisture Content, %	14.0	Natural Moisture Content, %	0.9
Corrected Max. Dry Density, pcf		Corrected Optimum Moisture Content, %			

Remarks

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (30) 595-1110

File No	3670	Sample No	BS - 01	Date Tested	5/8/06	Tested By	NP	QC By	SB

Date Recvd.	5/3/06								
Location									
Description	Brown sandy silty clay with tr.of gravel			Classification	A-4	LL	23	PI	9
Method	T 99	Opt. Moisture	14	Hammer wt, lb	5.5	Drop, in		12	
No. of Layers	3	No. of Blows/Layer	25						



Condition of sample	Soaked
Dry Density (pcf), before soaking	121.6
Dry Density (pcf), after soaking	121.8

Moisture Content of sample(%)

Before compaction	After compaction
14.2	14.2
Top 1" After Test	Average After Test
16.8	14.3

Surcharge Weight, lbs	10

Swell (% of initial height)	0.32
CBR (at 0.1 in penetration)	2.7

Remarks

ATTACHMENT 5

General Notes
Unified Soil Classification System

Soil Boring Description

Construction & Geotechnical Material Testing, Inc.
762 Larsen Lane, Bensenville, Illinois 60106
♦ Phone (630) 595-1111 ♦ Fax (630) 595-1110

Soil Boring Prepared for:

Boring No.

Boring No.:
Date:
Project:
Project No.:
Boring Location:
Logged By:
Ground Elevation:

Sheet 1 of

Elevation	Depth	Strata	Soil / Rock Description	Sample Type & No. Depth Interval (Ft) Recovery (in)	Blow Count	Moisture Content (%)	Unconfined Compressive Strength (TSF)	Notes & Test Results
	0.0							
	1.0		Soil Description - Soil descriptions and general notes are given in this column. Lines mark the approximate limits of each soil type. Actual stratification changes in-situ may be gradual, rather than sharply bounded as the stratification lines may suggest.	SS-1 1.0 - 2.5 " Recovery				Unconfined compressive strength of soil samples estimated using a calibrated pocket penetrometer and measured in Tons per Square Foot (TSF).
	2.0							
	3.0							
	4.0			SS-2 3.5 - 5.0 " Recovery				
	5.0							
	6.0			SS-3 6.0 - 7.5 " Recovery				
	7.0							
	8.0		Blow Count - Individual blow counts for each six inches the sampler was driven. Number of blows required to drive the sampler the final twelve inches is the 'N' value.					
	9.0			SS-4 8.5 - 10.0 " Recovery				SS - Split Spoon Sample
	10.0							
	11.0			SS-5 11.0 - 12.5 " Recovery				LL- Liquid Limit PL - Plastic Limit PI - Plasticity Index LL, PL, PI determined by the Atterberg Limits test performed in the geotechnical laboratory
	12.0							
	13.0							
	14.0		Moisture Content - Determined by laboratory testing.	SS-6 13.5 - 15.0 " Recovery				
	15.0							
	16.0			SS-7 16.0 - 17.5 " Recovery				
	17.0							
	18.0							
	19.0			SS-7 18.5 - 20.0 " Recovery				
	20.0		End of Boring					

Drilling Contractor:	Water Level (Ft.)
Drilling Method:	During Drilling:
Drilling Equipment:	Immediately After Drilling:
APPROVED BY:	

PRIMARY DESCRIPTIVE ELEMENTS

1. Material Classification
2. Density or Consistency
3. Moisture
4. Color
5. Grain Size Distribution
6. Plasticity/Cohesiveness
7. Stratification and Structure
8. Secondary Information
9. Geologic Interpretation

MATERIAL CLASSIFICATION

Textural Classification - based on Unified Soil Classification System (visual manual procedure described on back of page)

DENSITY or CONSISTENCY

(Terzaghi and Peck, 1967)

	Cohesive Materials Blow Counts	q_u (tsf)	*Granular Materials* Blow Counts
Very Soft	0-2	<0.25	
Soft	3-4	0.25-0.50	
Medium	5-8	0.50-1.0	
Stiff	9-15	1.0-2.0	
Very Stiff	16-30	2.0-4.0	
Hard	>30	>4.0	
Very Loose			0-4
Loose			5-10
Medium Dense			11-29
Dense			30-49
Very Dense			>50

MOISTURE

(based on ASTM D

Dry	Absence of Moisture
Moist	Damp, but no visible water
Wet	Visible free water

COLOR

Matrix Color and Secondary Mottling (Use Munsell Color Chart)

PLASTICITY

(based on ASTM D 2488)

Non-Plastic	1/8-inch thread cannot be rolled at any water content
Low	Thread can barely be rolled and lump cannot be formed when drier than the plastic limit.
Medium	The thread is easy to roll and not much time is required to reach the plastic limit. The lump crumbles when drier than the plastic limit.
High	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be rerolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.
NOTE:	Cohesiveness (Cohesive or Non-Cohesive)

STRUCTURE

(modified from ASTM D 2488)

Massive (Homogeneous)	Same color, texture, and appearance throughout
Thinly Laminated	0 to 2 mm
Laminated	3 to 6 mm
Bedded	> 6 mm (Note bedding thickness)
Fissured	Breaks along definite planes
Blocky	Cohesive soil that breaks into lumps
Lensed	Inclusion of small pockets of different soils
ALSO NOTE:	Bedding Attitude (Horizontal or Inclined)
	Secondary Features (Slickensides, Platy)

CONTACT

Sharp	< 1 cm
Gradational	> 1 cm (Note transition interval)

SECONDARY INFORMATION

Weathering Zone (Oxidized, Reduced, Deoxidized, Unoxidized)
Carbonate Status (Leached or Unleached)
Dry Strength (None, Low, Medium, High, Very High)
Toughness (Low, Medium, High)
Cementation (Weak, Moderate, Strong)
Odor: (mention if organic or unusual)
Dilatancy (Slow, Medium, or Rapid)
Particle Angularity (Angular, Subangular, Subrounded, Rounded)
Particle Shape (Flat, Elongated, or both)
Presence of Roots, Fossils, Accessory Minerals, Surface Coatings

GEOLOGIC INTERPRETATION

Subdivisions of:

Alluvial	Colluvial	Glacial	Residual
Aeolian	Pyroclastic	Marine	Organic

CRITERIA FOR ESTIMATING FIELD CLASSICATION OF FINE-GRAINED SOILS

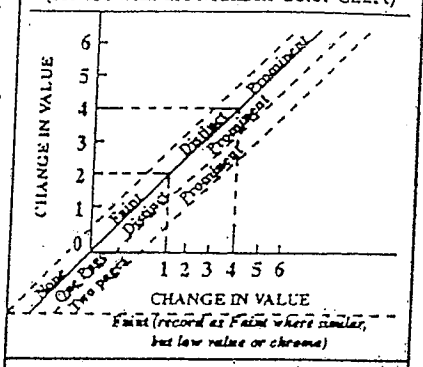
Plasticity	Dilatancy	Soil Thread	Toughness	Dry Strength	Smear	USCS Group Name
Non Plastic	Rapid	No Thread	No Thread.	None	None	Silt (ML)
Slight	Rapid to Slow	1/4 to 1/8"	Low	Low	Dull	Silt (ML) Organic Silt (OL)
Low	Slow	1/8 to 1/16"	Low to Medium	Low to Medium	Dull to Slightly Shiny	Organic Silt (OL) Elastic Silt (MH) Silty Clay (CL-ML)
Medium	None to Slow	1/32"	Medium	Medium to High	Slightly Shiny to Shiny	Lean Clay (CL) Elastic Silt (MH) Organic Clay (OH)
High	None	1/64"	High	High/Very High	Shiny	Fat Clay (CH)

EXAMPLE

FOORLY GRADED SAND WITH GRAVEL (SP)
Loose, dry, pale yellow (2.5Y 7/3), mostly coarse to fine sand, little fine gravel, non-plastic, horizontal planar stratification (10mm); with occasional laminations (3mm) of yellowish brown (2.5YR 6/3) clay. ALLUVIUM, Henry Formation

CONTRAST OF MOTTLES

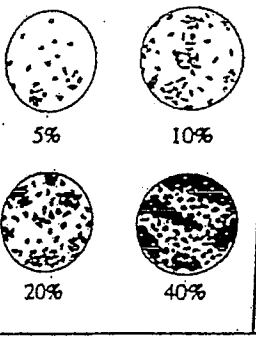
(for use with the Munsell Color Chart)



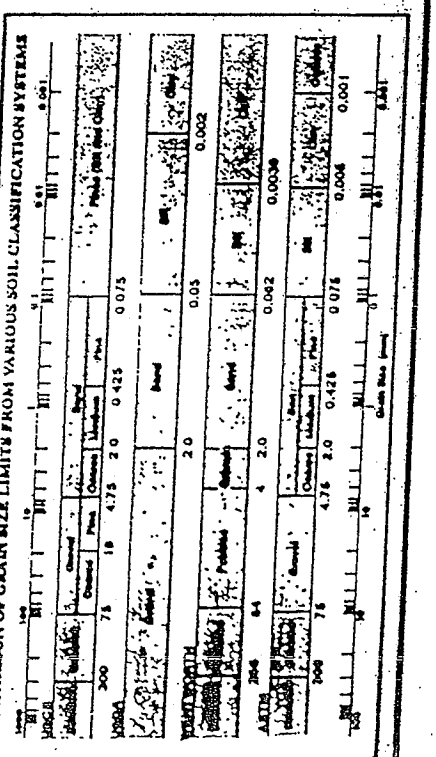
ABUNDANCE: Few: <2%, Common: 2-20%, Many:>20%
SIZE: Fine:<5mm, Medium: 5-15mm, Coarse: >15mm
CONTRAST: Faint, Distinct, or Prominent (As Above)

REFERENCE CHARTS

PERCENT COMPOSITION



PARTICLES & PORES



PROPORTIONS BY WEIGHT:
Trace: 1-5%, Few: 5-10%,
Little: 15-25%, Some: 30-45%

9Le

Project No. 00G5708

PAVEMENT SOIL SURVEY REPORT

Proposed Bluff Avenue Reconstruction
Bluff Avenue: Elm to 47th Street
LaGrange, Illinois

PREPARED FOR

Village of LaGrange
c/o Heuer and Associates
6160 Joliet Road
Countryside, Illinois 60525-3994

April 3, 2001

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[685-2828]

Project No. 00G5708

April 3, 2001

Village of LaGrange
c/o Heuer and Associates
Mr. Thomas A. Heuer, P.E.
6160 Joliet Road
Countryside, Illinois 60525-3994

RE: Pavement Soil Survey Report
Proposed Bluff Avenue Reconstruction
Bluff Avenue: Elm to 47th Street
LaGrange, Illinois

Dear Mr. Heuer:

The above referenced investigation was carried out for the evaluation of the existing pavement and subsoil conditions, for the referenced project site: Bluff Avenue, between Elm and 47th Street, in LaGrange, Cook County, Illinois.

The existing pavement system consists of a bituminous concrete wearing course over a variable thickness granular base course, in the north on Bluff and on Tilden Avenue (Maple to 47th Street) or over a Portland Cement concrete base course in the south. The pavement conditions generally range from fair to poor, with observed distress manifestations consisting of alligator cracking, patched areas, transverse and random cracking of the bituminous pavement. The overall condition of the pavement would be categorized as fair to poor.

We trust that the information in this report is satisfactory for this investigation. We have welcomed the opportunity to be of service to you for this project. If there are any questions with regards to this report, please do not hesitate to contact our offices.

Respectfully submitted,

MATERIAL TESTING LABORATORIES, INC.

Glenn R. Mann
Vice President
Geotechnical/Environmental
Services Division

Mahendra Patel, P.E.
Senior Project Engineer
IL #062-042619

MTP/GRM:ab

INDEX

I. SCOPE OF SURVEY

This report presents the results of the pavement and subsoil investigation for the proposed improvements to Bluff Avenue between Brainard and East Avenues. in LaGrange, Cook County, Illinois, and has been prepared from the furnished and gathered subsoil and pavement data.

The purpose of the investigation was to secure and log subsoil and pavement information, to record the characteristics and thicknesses of the various soils strata as encountered in the borings, to perform appropriate laboratory tests, and to evaluate all of the data provided and obtained. Conclusions and recommendations are provided regarding construction and design considerations for the proposed roadway to aid in the design and construction of the specific project at the location discussed herein.

II. GENERAL SITE INFORMATION

A. Project Information

The proposed project consists of planned pavement improvements on Bluff Avenue from Brainard Avenue to East Avenue, and Tilden Avenue, Maple Avenue to 47th Street in LaGrange, Illinois. The improvements are reportedly to consist of reconstruction of the existing pavement system.

B. Geologic History

The project site falls at the contact between the soils believed deposited on the lake plain of post-glacial Lake Chicago, geologic predecessor to present day Lake Michigan, and the glacial tills of the Tinley Moraine/Groundmoraine. The contact boundary is rather well defined by the site topography, with Bluff Avenue at the approximate contact, which defines the approximate limit of the earliest shoreline of post-glacial Lake Chicago in this area.

The lacustrine soils consist of a complexly layered series of silty clays, clayey silts and sand extending to the surface of the area glacial till or directly to bedrock. The Niagaran dolomite bedrock of the Silurian is found throughout the general area at depths of typically less than 20 feet, and was present in the current test borings on the east side of the site at depths as shallow as about 8.8 feet to about 13 feet (going from north to south along Bluff Avenue.)

This survey is concerned with the upper 10± feet of soils upon which the proposed improvement lays. The upper soils consist of the glacial till of the Tinley Moraine on the Tilden Avenue section, while the silty clay Equality Formation soils of the post-glacial lake plain are present on Bluff Avenue, where the glacial till soils are intermittently present at depth..

Table I - Relationships between Geologic Units (Soil)

Stage	Substage	Formation	Member	
Holocene		Made Land		
		Strip mine waste piles		
Wisconsinan And Holocene	Woodfordian Twocreekan Valderan and younger	Cahokia Alluvium		
		Grayslake Peat		
		Parkland Sand		
Wisconsinan	Woodfordian Twocreekan and Valderan	Equality	Carmi	
			Dolton	
		Lake Plane		
		Glacial Sluiceway		
		Henry	Mackinaw	
	Woodfordian		Batavia	
			Wasco	
		Wedron	Wadsworth	Lake Border Morainic System
				Zion City Moraine
				Highland Park Moraine
				Blodgett Moraine
				Deerfield Moraine
				Park Ridge Moraine
				Lake Border Groundmoraine
				Tinley Moraine
				Tinley Groundmoraine
			Wadsworth and Haeger	Valparaiso Morainic System
				Valparaiso undifferentiated
				Valparaiso Groundmoraine
				Palatine Moraine
				Fox Lake Moraine
				Cary Moraine
				West Chicago Moraine
				Roselle Moraine
				Keeneyville Moraine
				Wheaton Moraine
				Clarendon Moraine
				Westmont Moraine
			Yorkville	Manhattan Moraine
				Wilton Center Moraine
				Rockdale Moraine
				Minooka Moraine
				Manhattan-Minooka Groundmoraine
				Marseilles Moraine
				St. Charles Moraine
				Barlina Moraine
				Huntley Moraine
				Marseilles-Huntley Groundmoraine
			Malden	Gilberts Moraine
				Elburn Morainic Complex
				Gilberts Groundmoraine
			Tiskilwa	Marengo Moraine

Approximate Ages of Units

Substage	Age (B.P.)
Valderan	7000 to 11,000
TwoCreekan	11,000 to 12,500
Woodfordian	12,500 to 22,000

Bedrock has been found within less than 10 feet of existing ground surface in the near-vicinity of the current site, and is exposed in a rock quarry to the southeast of the intersection of 47th Street and East Avenue.

C. Soil Conditions - Characteristics

1. Existing Pavements

The existing flexible pavement consists of a bituminous concrete (Hot Mix Asphalt – HMA) wearing course over a variable thickness crushed stone or Portland Cement concrete base course. The statistics of the measured thicknesses of bituminous concrete and the base course layers are presented in Table II.

Table II - Pavement Thickness

Parameter	Asphalt, inches	Portland Cement Concrete, inches	Aggregate Base Course, Inches
Minimum	4"	5.5"	2"
Average	4.6"	5.8"	4.4"
Maximum	5.5"	6.5"	7"

Note: Borings B-1 and B-2 "base course" thickness believed a combination of original pavement base course and trench backfill, and are not included in the aggregate base course data for this table.

The overall pavement condition is fair to poor, with widespread distress consisting of transverse and longitudinal cracking, with patched areas, some rutting and surface ravelling.

2. Surface Soils

The immediate subsurface soils along Bluff Avenue consist of post-glacial (recent) brown or gray silty clay sediments (Equality Formation), interbedded with clayey silt and occasional fine silty sands lenses. The recent soils are generally well-precompressed (except in boring B-4) due to weathering, decreasing in strengths somewhat where the lacustrine sediments are found in thicknesses of more than a few feet. Glacial till, as silty clay, was present below the sediments in boring B-9 on Bluff Avenue. The area glacial till, a highly weathered precompressed silty clay was present in all test borings on Tilden Avenue, and extended to the end of the test borings.

The test borings on both streets found varying thickness' of fill at the immediate subgrade, consisting of a brown sand or gray crushed stone, ranging from a few inches to as much as 2.1 feet thick, respectively. A black silty clay loam layer, likely a "topsoil" remnant, was found below the fill in test borings B-2 and B-9. The natural soils are generally classified as Urban land-Markham-Ashkum, but definitive soil maps are not available for the actual area of the current investigation.

The subgrade soils/fills mainly consist of silty clay/clay to clayey silt having an AASHTO classification A-4 to A-6, all having a frost susceptibility rating of F3 to F4, medium to high. These soils range from moderately well to poorly drained and have moderate to low permeability. Borings B-1 – B-4, and B-9 all encountered bedrock at relatively shallow depths; borings B-5 – B-7 (on Tilden Avenue) are at a higher elevation, and did not encounter rock to the depth of the borings. ("Bedrock" is based on "auger refusal" and the presence of weathered dolomite cuttings from the boreholes.)

The immediate subgrade soils in these sections (silty clay/clay loam/clayey silt soils/fills) are classed as cohesive, relatively impermeable, and having medium to high shrinkage potentials. They have a tough consistency on the current site, and widely varying moisture contents in both the fills and the in-place natural soils. The silty clays/clayey silts are subject to medium to high pumping/rutting when saturated and exposed to traffic wheel loadings, and have a high to very high frost potential.

3. Subsurface Soils

The subsurface soils range from gray and brown to brown weathered lacustrine clay to gray silt, having physical properties equivalent to those of the soils discussed in the immediately preceding sections. The saturated silt in boring B-8 was medium dense and saturated. The silt soils (B-4, B-would be highly unstable in open excavation, particularly where saturated.

III. PAVEMENT DESIGN CONSIDERATIONS

A. General Discussion-Pavements

Predicated on the variable pavement sections, observed pavement distress and the other available data, pavement rehabilitation should consist of removal and replacement of the existing flexible pavement system with a new flexible or rigid pavement system.

Complete removal and replacement of the existing pavement structure with a similar conventional pavement system, utilizing either an aggregate base course or a bituminous stabilized base course appears feasible for the current site renovation. This option would readily address any unstable subgrade areas (B-2, B-4, B-9), and would provide the most substantial pavement renovation available for the current site. Initial costs would, of course, be highest under this option. While patching and overlay is an option, the widespread areas of distress on Bluff Avenue would likely mitigate against this option.

B. General - Design Criteria

1. Subgrade Soils

Subgrade soils for the proposed new pavements are expected to range from brown and gray to dark gray mottled silty clay fills to occasional lenses of black silty clay loam fills or gray crushed stone fill. The nature of the immediate subgrade soils/fills would indicate that ground modification activities will be necessary to construction a new pavement system.

Discing and aeration of the plastic subgrade soils, with undercutting where isolated "topsoil" lenses might be encountered (vicinity of test borings B-2, B-4, and B-9) would be the corrective actions of choice. Undercutting and installation of an appropriate porous granular embankment (PGE) material is suggested if moisture modification of the subgrade cannot be accomplished

within the required time frame. Lime stabilization would also be a secondary means of subgrade stabilization for the current site. To help minimize the depth of undercuts needed for long-term stability, use of an approved geotextile for subgrade reinforcement and separation is also suggested for both the undercut areas.

Details of the pavement thickness and the groundwater are displayed in Table III below.

Table III - Pavement Thickness and Groundwater Details

Boring	Bituminous Concrete, Inches	Portland Cement Concrete, inches	Granular Base Course/ Fill, Inches	WD (FT.)	AD (FT.)	Remarks
B - 1	5"	6.5"	2"	11.5'	7.5'	Refusal @ 12.5'
B - 2	5"	5.5"	2.1'	dry	9.2'	Refusal @ 11.0'
B - 3	4.5"	5.5"	2.1'	9'	dry	Refusal @ 13.0'
B – 4	5"	--	7"	6'	dry	Refusal @ 9.5'
B – 5	5"	--	4"	dry	dry	--
B - 6	4"	--	5"	dry	dry	--
B - 7	4"	--	5"	dry	dry	--
B - 8	4.5"	--	5"	8'	dry	--
B - 9	4"	--	3"	dry	dry	Refusal @ 8.8'

2. Illinois Bearing Ratio (IBR) Recommendations

Design Manual Section 7-002.05, review May, 1982, Illinois Department of Transportation (IDOT) Bureau of Design, recommends an Illinois Bearing Ratio (IBR) value of 2 for soils classed as A-7-6, and an IBR value of 3 for the A-6 soils if tests were not performed. Based on the soil classification data, the subgrade soils are generally silty clays, and we therefore recommend an IBR value of 3.0 for design of the planned pavement renovation in all sections. For Mechanistic Design, the subsoil particle size analysis is presented on the appended Soil Test Data Summary sheet.

3. Groundwater

Ground water readings in the boreholes indicate ground water levels at depths of between eight and nine feet below existing ground (pavement) surface. Five of the nine test borings encountered groundwater while drilling, specifically the boring on Bluff Avenue. It should be noted that the exploratory work was conducted in early spring. Seasonally groundwater levels might be anticipated at other seasons, particularly in the lower area (Bluff Avenue.)

4. Organic Soils

As was noted above, some "organic" soils were encountered during exploration. The visually most severe of these (sample 1 from borings B-4 and B-9) were tested, and were found to have organic contents of less than seven percent. The soils are actually classified as clay loam to silty clay loams per USDA classification criteria.

Such dark colored silty clays may frequently be mistaken as organic soils based purely on their color. Distinguishing between a black silty clay and a topsoil requires noting texture, odor, and the presence of roots and other organic materials.

5. Frost Susceptible Soils

The county Soil Survey of DuPage and Part of Cook Counties, Illinois, USDA, SCS, May 1979, S012, report indicates that all the surficial soils in the project area have medium to high (F3 to F4) susceptibility to frost. These conditions generally are present across area.

IV. PAVEMENT CONSTRUCTION CONSIDERATIONS

The cohesive soils on the current site in their natural state are generally above their plastic limit. When the silty clay soils are saturated and disturbed, such as by construction traffic, they will "pump" and exhibit highly unstable conditions. The project subsoil's are generally cohesive to semi-cohesive soils of moderate to medium strength. Shallow excavations for sewers, etc., are expected to be able to maintain near vertical slopes, however, prudent engineering judgment dictates that proper sloping, or bracing, of excavations must be provided to adequately protect personnel and adjacent properties in accordance with legal and safety requirements.

- **Slopes for excavations should be protected, following appropriate OSHA (Occupational Health and Safety Administration) 29 CFR PART 1926, state and local guidelines as a minimum.**

V. CLIMATOLOGY AND DRAINAGE

The field investigation was completed in January 2001. The absence of significant ground water indicates that existing subsurface drainage of the area is likely adequate. No future surface run-off and its possible effect on the proposed improvements is evident at this time.

VI. CONDITION OF EXISTING PAVEMENTS

The existing composite pavement consists of a bituminous concrete wearing course over a variable thickness PCC base course on the south end of Bluff Avenue, while the north end of the Bluff and all of Tilden have a Hot Mix Asphalt over a granular base course. The statistics on the measured thickness of bituminous concrete and the granular base courses are displayed in Table II on page 3 of this report.

The pavement conditions range from fair to poor, with distress consisting of alligator cracking, transverse and longitudinal cracking, and patched areas in the bituminous concrete wearing course. The overall condition of the pavement would be categorized as fair to poor.

VII. FINAL DESIGN REVIEW

It is recommended that we be retained to review final design drawings to insure the compatibility of the proposed improvements with existing soil and ground water conditions, and to verify the adequacy of available subsoil data.

VIII. LABORATORY SOIL TESTS

Laboratory tests were performed on representative samples of the soils. Calibrated penetrometer tests, unconfined compressive strength (ASTM D 2166),and natural moisture content (ASTM D 2216), tests were performed on samples of cohesive soils. Calibrated penetrometer readings were substituted for unconfined compressive strength tests as an approximation of cohesive soil strength. The maximum reading of the penetrometer is 9,000 pounds per square foot. The results of the penetrometer, moisture content and density tests are included on the final test boring logs. The following tests are reported separately in this report.

Particle Size	AASHTO T 88
Organic Content	AASHTO T 194

IX. FIELD INVESTIGATION

Nine (9) test borings were located in the field by means of a measuring wheel. The borings were made on January 12, 2001. An Acker AD II continuous flight solid-stem auger drill rig was used to make the test borings. Soil samples were taken using a split barrel (ASTM D 1586) sampler in the borings at 2.5-foot maximum intervals. The soil types, nature, consistency, strata depths and thicknesses, the sampling data, and other conditions apt to affect design or construction were recorded in the field logs. In the split barrel sampling, the standard penetration "N" (the number of blows of a 140-pound hammer dropping 30 inches to drive the standard 2-inch O.D. split-barrel sampler) was recorded in 6-inch increments and entered in the field logs. Representative samples from the split tube were placed in a sealed jar and delivered to the laboratory for further classification and testing.

During drilling and immediately after completion of drilling, readings of the ground water were taken in the boreholes and recorded on the boring logs. A granular backfill was placed in the boring with remaining spoil and a temporary bituminous cold patch was placed in the pavement section of the borehole.

X. GENERAL CONDITIONS

A. Report Preparation and Review

This report has been prepared in accordance with generally accepted geotechnical engineering and engineering geology practices common to this geographic area. No other warranty, expressed or implied is intended. The report has been prepared for the client for his stated purpose only, and the report may not contain sufficient recommendations nor information for other parties or uses.

In the event that any changes in the scope of the project, however slight, are planned, the conclusions and recommendations contained in this report shall not be considered valid unless the changes are reviewed, and the conclusion and recommendations of their report modified or reaffirmed in writing. In the event that conclusions and recommendations based upon the data of this report are made by others, such conclusions and recommendations are not our responsibility unless a review is made and a concurring opinion is submitted in writing.

B. Test Boring Locations

The test borings have been located by a measuring wheel. The test borings were located to be within five feet from the locations shown on the attached drawings enclosed with this report.

C. Test Boring Logs

Field boring logs were prepared in the field by a qualified driller foreman. These field logs, in file in our office, give pertinent field data including borings, dates of taking the borings, methods of drilling and sampling, depths of sample, descriptions of the various soil samples observed, and estimation between samples, ground water readings, and other observed conditions considered pertinent to the investigation. The soil between samples may have been determined by the drilling foreman based upon "feel" of the drill bit or wash cuttings. The change in soil strata may be transitional rather than abrupt, particularly with respect to coloring, weathering, and consistency changes. The amount of large sized gravel or boulders is generally estimated because sampling tubes seldom retain these larger sized soil particles.

The field soil descriptions have been reviewed and reaffirmed or modified by visual examination of soil samples by a qualified engineer or geologist in accordance with the enclosed boring log explanation sheet. Consistency classifications for the cohesive soils are based upon the laboratory tests, visual sample inspection, and/or field penetration tests. Denseness classification

for the granular soils are based upon the field penetration tests. The final test boring logs have been prepared from the field data, the sample review, and the laboratory data, and therefore are based upon both interpretive and factual data.

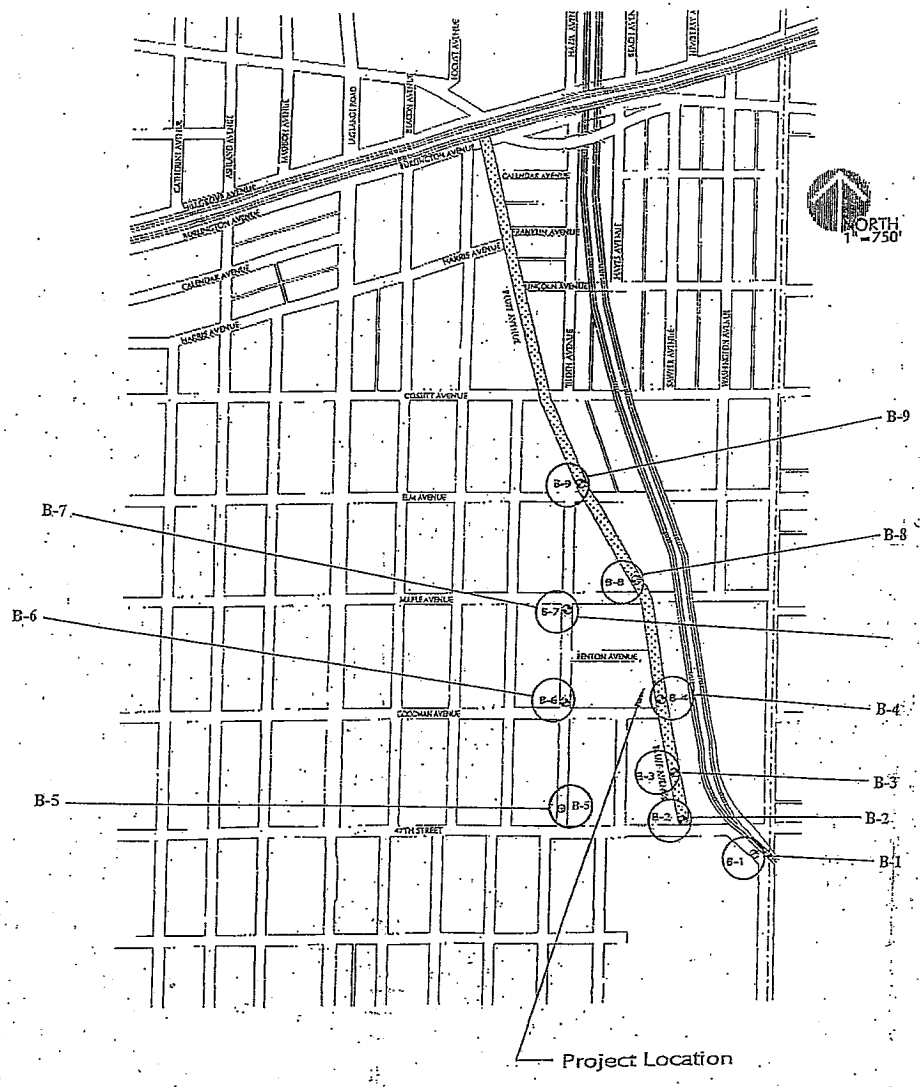
D. Ground Water

Our interpretations of the ground water levels on the site have been made based upon the water level readings stated on the soil boring logs. However, it must be noted that fluctuations in the level and quantity of the ground water may occur due to variations in rainfall, temperature, soil permeability, and other factors not evident at the time of the water level measurements. The probability of ground water level variation is anticipated, and the design drawing and specifications should accommodate such possibilities. Construction planning should also be based upon such assumptions of ground water level variations.

E. Soil Variations and Construction Inspection

The analyses and recommendations made in this report are based upon the data obtained at the boring locations. The soil conditions in any local region are known to vary widely, and the borings performed for this investigation do not necessarily provide a complete picture of all soils or pavement sections that may exist at the site or that may be encountered during excavations for the project. This report does not reflect any soil variations which may exist away from the borings, and it may be necessary to re-evaluate the recommendations of this report after performing on-site inspections of all soils/pavements immediately after their exposure. It is recommended that we be retained to perform continuous subsoil inspection and construction review during the stripping, site grading, excavation, and placement phases of the project.

Appendix A
Boring Location Diagram



Base Map Source: Provided by Client.

N

⊕ - Boring Locations

Boring Location Diagram
Bluff Avenue: Elm to 47th Street
LaGrange, Illinois

SCALE: Reduced	DRAWN BY: A.B.
DATE: 03-30-01	REVISED BY:

MATERIAL TESTING LABORATORIES, INC.
AN ENGINEERING COMPANY
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(685-2825)

DRAWING NUMBER
00G5708

Appendix B
Soil Test Data

MATERIAL TESTING LABORATORIES, INC.
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REPORT OF LABORATORY TESTS OF SOILS

CLIENT: Village of LaGrange
c/o Heuer & Associates
6160 Joliet Road
Countryside, Illinois 60525-3994

PROJECT: Bluff Avenue: Elm to 47th Street
LaGrange, Illinois

DATE TESTED:

MTL REPORT NO.: 00G5708

LABORATORY NUMBER	1	2			
BORING NUMBER \ SAMPLE NUMBER	B-4/S1	B-9/S1			
UNCONFINED COMPRESSIVE STRENGTH, PSF					
NATURAL MOISTURE CONTENT, %	22.1	24.4			
DRY DENSITY, LBS./CU.FT.					
MAGNETIC CONTENT, %					
SOIL CLASSIFICATION , Unified	CL	CL			
TEXTURAL CLASSIFICATION, USDA	Silty Clay Loam	Clay Loam			
PARTICLE SIZE ANALYSIS, AASHTO T88					
PASSING 1" SIEVE, %					
PASSING 3/4" SIEVE, %					
PASSING 1/2" SIEVE, %	100.0	100.0			
PASSING #4 SIEVE, %	95.3	96.8			
PASSING #10 SIEVE, %	93.0	93.2			
PASSING #40 SIEVE, %	88.5	87.6			
PASSING #100 SIEVE, %	80.9	82.2			
PASSING #200 SIEVE, %	79.7	80.4			
SAND, %	20.3	19.6			
SILT, %	43.2	40.6			
CLAY, %	36.5	39.8			
LIQUID LIMIT, AASHTO T89					
PLASTICITY INDEX, AASHTO T90					
ORGANIC CONTENT IN SOIL, AASHTO T194	4.7	6.8			
BEARING RATIO, AASHTO T193					
STANDARD MOISTURE DENSITY, AASHTO T99, PCF					
MODIFIED MOISTURE DENSITY, AASHTO T180, PCF					
OPTIMUM MOISTURE CONTENT, %					

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FAX: (708) 345-6495

Boring B-1

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II METHOD OF BORING: A SS O.D. 2" 140# HAMMER 30" DROP SHELBY TUBE SIZE: CASING SIZE: None CORE SIZE:	WATER LEVEL READINGS 11.5' W.D. DCI @ 7.5' A.D.	DRILLING DATA DATE START: 1/12/2001 DATE END: 1/12/2001 DRILLER: E. Flood HELPER: D. Barry GEOLOGIST: Log Scale: 1" = 5'	BACKFILLING DATA DATE: 1/12/2001 BY: MTL METHOD: QUANTITY: GROUT: Drill Cuttings

SOIL DESCRIPTION AND LITHOLOGY

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

DEPTH	S	T	L	R	N	
0						Ground Surface Depth = 0.0
1.1	1	SS		21	18 35 17	Hot Mix Asphalt: 5" +/- / Portland Cement Concrete: 6.5" +/- / Brown coarse SAND, trace silt, Fill: 2" +/- Gray crushed STONE & SILT, trace clay, Fill (ML) 1.1
3.0	2	SS		10	8 16 8	Olive-gray silty CLAY, trace coarse sand, trace small gravel, damp, very tough (CL) 3.0
	3	SS		11	10 19 9	
8.0	4	SS		9	18 44 26	Gray silty CLAY to clayey SILT, trace small gravel, damp to saturated, very tough/dense (CL) to (CL-ML) 8.0
12.5	5	SS		19	20 46 26	12.5

End of boring at 12.5 feet. Water levels as noted. Borehole backfilled upon completion using Drill Cuttings.

("Auger Refusal" @ 12.5')

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

MTL-LOGA 00G5708.GPJ DATA-STD.GDT 4/3/01

MATERIAL TESTING LABORATORIES, INC.
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FAX: (708) 345-6495

Boring B-2

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS
Dry W.D.
9.2' @ 0 Hours A.D.

DRILLING DATA
DATE START: 1/12/2001
DATE END: 1/12/2001
DRILLER: E. Flood
HELPER: D. Barry
GEOLOGIST:
Log Scale: 1" = 5'

BACKFILLING DATA
DATE: 1/12/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

SOIL DESCRIPTION AND LITHOLOGY

DEPTH	S	T	LR	N
0				
0.9	1	SS	99	
3.0				
4.0	2	SS	8 6 6	12
	3	SS	10 9 9	18
	4	SS	99	
11.0				

Ground Surface Depth = 0.0

Hot Mix Asphalt: 5" +/- / Portland Cement Concrete: 5.5" +/- 0.9

Gray crushed STONE & SCREENS, trace silt, Fill 3.0

Black silty CLAY, trace fine sand, damp (CL) 4.0

Dark gray silty CLAY to clayey SILT, trace small to medium gravel, damp to saturated, very tough/medium dense to very dense (CL) to (CL-ML) 11.0

End of boring at 11 feet. Water levels as noted. Borehole backfilled upon completion using Drill Cuttings.

("Auger Refusal" @ 11.0')

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

MTL-LOGA 00G5708.GPJ DATA-STD.GDT 4/3/01

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Boring B-3

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS
9' W.D.

DRILLING DATA
DATE START: 1/12/2001
DATE END: 1/12/2001
DRILLER: E. Flood
HELPER: D. Barry
GEOLOGIST:
Log Scale: 1" = 5'

BACKFILLING DATA
DATE: 1/12/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

SOIL DESCRIPTION AND LITHOLOGY

DEPTH	S	T	L	R	N	Atterberg Limits PI PL LL / Moisture Content % 20 40 60 80 100
0						Ground Surface Depth = 0.0
0.9	1	SS			99	Hot Mix Asphalt: 4.5" +/- / Portland Cement Concrete: 5.5" +/- 0.9
3.0	2	SS			6 9 10 19	Gray small crushed STONE, some silt & screens, damp, Fill 3.0
	3	SS			9 9 10 19	Brown & gray silty CLAY, damp, very tough (CL)
8.1	4	SS			19 18 15 33	Gray clayey SILT, trace small to medium gravel, damp to saturated, medium dense (ML-CL) 8.1
	5	SS			19 28 19 47	
13.0						13.0

End of boring at 13 feet. Water levels as noted. Borehole backfilled upon completion using Drill Cuttings.

("Auger Refusal" @ 13.0')

psf 2000 4000 6000 8000 10000
Lab Qu ⊕ Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

MTL-LOGA 00G5708.GPJ DATA-STD.GDT 4/3/01

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Boring B-4

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS		DRILLING DATA	
6.0'	W.D.	DATE START:	3/19/2001
		DATE END:	3/19/2001
Dry	A.D.	DRILLER:	E. Flood
		HELPER:	J. Perez
		GEOLOGIST:	
		Log Scale:	1" = 5'

BACKFILLING DATA
DATE: 3/19/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

DEPTH	S	T	L	R	N	SOIL DESCRIPTION AND LITHOLOGY
0						Ground Surface — Depth = 0.0
1.1	1	SS			4 3 4 — 7	Hot Mix Asphalt: 5" +/-? Gray crushed STONE, trace silt, Fill: 7" +/-
	2	SS			5 5 6 — 11	Olive-gray & brown silty CLAY, mottled, trace small gravel, damp, tough (CL)
6.0	3	SS			9 7 26 — 33	Gray SILT, trace coarse sand & small gravel, saturated, dense (ML)
9.5	4	SS			17 99	
						End of boring at 9.5 feet. Borehole dry upon completion. Borehole backfilled upon completion using Drill Cuttings.
						("Auger Refusal" @ 9.5')

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

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Boring B-5

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS
Dry W.D.
Dry @ 0 Hours A.D.

DRILLING DATA
DATE START: 1/12/2001
DATE END: 1/12/2001
DRILLER: E. Flood
HELPER: D. Barry
GEOLOGIST:
Log Scale: 1" = 5'

BACKFILLING DATA
DATE: 1/12/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

DEPTH	S	T	L	R	N	SOIL DESCRIPTION AND LITHOLOGY
0						Ground Surface Depth = 0.0
0.8						Hot Mix Asphalt: 5" +/- / Gray crushed STONE, trace silt, Fill: 4" +/- 0.8
	1	SS		29	13 28 15	Brown & gray silty CLAY, trace small gravel, damp, hard to very tough (CL)
	2	SS		8	11 26 15	
	3	SS		10	10 24 14	
8.0						8.0
	4	SS		10	9 18 9	Gray silty CLAY, trace small gravel, damp, very tough (CL)
10.0						10.0

End of boring at 10 feet. Water levels as noted. Borehole backfilled upon completion using Drill Cuttings.

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

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Boring B-6

MTL Project 00G5708 - Sheet 1 of 1

CLIENT:. Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS	
Dry	W.D.
Dry	A.D.

DRILLING DATA	
DATE START:	1/12/2001
DATE END:	1/12/2001
DRILLER:	E. Flood
HELPER:	D. Barry
GEOLOGIST:	
Log Scale:	1" = 5'

BACKFILLING DATA	
DATE:	1/12/2001
BY:	MTL
METHOD:	
QUANTITY:	
GROUT:	Drill Cuttings

DEPTH	S	T	L	R	N	SOIL DESCRIPTION AND LITHOLOGY
0						Ground Surface Depth = 0.0
0.7						Hot Mix Asphalt: 4" +/-/ Gray crushed STONE, trace silt, Fill: 5" +/- 0.7
	1	SS			16 9 18 9	Brown & gray silty CLAY, trace silt, trace small gravel, damp, hard (CL)
3.0						3.0
	2	SS			14 13 23 10	Brown & gray to gray silty CLAY, trace small gravel, damp, hard (CL)
	3	SS			11 10 18 8	
	4	SS			11 14 25 11	
10.0						10.0
						End of boring at 10 feet. Borehole dry upon completion. Borehole backfilled upon completion using Drill Cuttings.

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

MTL-LOGA 00G5708.GPJ DATA-STD.GDT 4/3/01

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Boring B-7

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS
Dry W.D.
Dry A.D.

DRILLING DATA
DATE START: 1/12/2001
DATE END: 1/12/2001
DRILLER: E. Flood
HELPER: D. Barry
GEOLOGIST:
Log Scale: 1" = 5'

BACKFILLING DATA
DATE: 1/12/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

DEPTH	S	T	L R	N	SOIL DESCRIPTION AND LITHOLOGY
0					Ground Surface Depth = 0.0
0.8	1	SS		13 17 32 15	Hot Mix Asphalt: 4" +/- / Gray crushed STONE, trace silt, Fill: 5" +/- 0.8
3.2	2	SS		17 16 39 23	Brown & gray silty CLAY, trace coarse sand, damp, very tough to hard (CL) 3.2
	3	SS		15 13 33 20	Brown & gray to gray silty CLAY, trace small gravel, damp, hard (CL)
10.0	4	SS		11 13 27 14	10.0
					End of boring at 10 feet. Borehole dry upon completion. Borehole backfilled upon completion using Drill Cuttings.

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

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Boring B-8

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS	
8.0'	W.D.
Dry	A.D.

DRILLING DATA	
DATE START:	1/12/2001
DATE END:	1/12/2001
DRILLER:	E. Flood
HELPER:	D. Barry
GEOLOGIST:	
Log Scale:	1" = 5'

BACKFILLING DATA	
DATE:	1/12/2001
BY:	MTL
METHOD:	
QUANTITY:	
GROUT:	Drill Cuttings

DEPTH	S	T	L	R	N	SOIL DESCRIPTION AND LITHOLOGY
0						Ground Surface — Depth = 0.0
0.9	1	SS		14	8 16	Hot Mix Asphalt: 4.5 +/- / Gray crushed STONE, Fill: 6" +/-
2.5					8	Dark gray crushed STONE, trace silt, Fill — 0.9
	2	SS		6	7 15	Brown & gray silty CLAY, trace small gravel, damp, very tough (CL) — 2.5
	3	SS		9	9 19	
8.0					10	
	4	SS		19	10 18	Gray SILT, trace fine sand, saturated, medium dense (ML) — 8.0
10.0					8	10.0

End of boring at 10 feet. Borehole dry upon completion.
Borehole backfilled upon completion using Drill Cuttings.

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

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Boring B-9

MTL Project 00G5708 - Sheet 1 of 1

CLIENT: Village of LaGrange
PROJECT: Bluff Avenue: Elm to 47th Street
LOCATION: LaGrange, Illinois

BORING LOCATION: See Boring Location Diagram

DRILL RIG: Acker AD-II

METHOD OF BORING: A
SS O.D. 2" 140# HAMMER 30" DROP
SHELBY TUBE SIZE:
CASING SIZE: None
CORE SIZE:

WATER LEVEL READINGS	
Dry	W.D.
Dry	A.D.

DRILLING DATA	
DATE START:	1/12/2001
DATE END:	1/12/2001
DRILLER:	E. Flood
HELPER:	D. Barry
GEOLOGIST:	
Log Scale:	1" = 5'

BACKFILLING DATA
DATE: 1/12/2001
BY: MTL
METHOD:
QUANTITY:
GROUT: Drill Cuttings

DEPTH	S	T	L	R	N
0					
0.9	1	SS			5 5 11 6
3.0	2	SS			13 10 19 9
	3	SS			11 10 20 10
8.8	4	SS			99

SOIL DESCRIPTION AND LITHOLOGY

Ground Surface — Depth = 0.0

Hot Mix Asphalt: 4" +/- / Gray small crushed STONE, trace silt, Fill: 3" +/-

0.9

Black silty CLAY loam, damp, very tough (CL-OL)

3.0

Brown & gray silty CLAY, trace small gravel, damp, very tough (CL)

8.8

End of boring at 8.5 feet. Borehole dry upon completion.
Borehole backfilled upon completion using Drill Cuttings.

("Auger Refusal" @ 8.8')

Atterberg Limits PI PL LL
Moisture Content
% 20 40 60 80 100

psf 2000 4000 6000 8000 10000
Lab Qu ● Calib. Pen. Qp ○

DEPTH	S	T	L	R	N

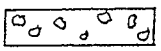
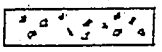
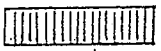
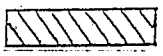
LEGEND:
A - AUGERS
ACR - AFTER CASING REMOVAL
AD - AFTER DRILLING
BCR - BEFORE CASING REMOVAL
C - CORE
DCI - DRY CAVE-IN
γ_d - DRY DENSITY, LBS. PER CU. FT.
DEPTH - FEET BELOW GROUND SURFACE
FT - FISHTAIL BIT
HA - HAND AUGER
HSA - HOLLOW STEM AUGER
L - SAMPLE LENGTH
N - STANDARD PENETTRATION, BLOWS PER FOOT
QU - UNCONFINED COMPRESSIVE STRENGTH, LBS. PER SQ. FT.
R - LENGTH OF SAMPLE RECOVERY
S - SAMPLE NUMBER
S - SPLIT SPOON
ST - SHELBY TUBE
T - TYPE OF SAMPLE
WC - WATER CONTENT
WCI - WET CAVE-IN
WD - WHILE DRILLING
WS - WASHOUT

MTL-LOGA 00G5708.GPJ DATA-STD.GDT 4/3/01

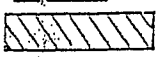
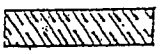
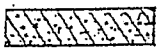
MATERIAL TESTING LABORATORIES, INC.
AN ENGINEERING COMPANY

SOIL BORING LOG EXPLANATION

TEXTURE CLASSIFICATION

Texture	Symbol	Abbreviation	Size	Abbreviation	Soil Particle Size
Boulder		Bo			Over 3.0
Gravel		Gr	Large	L	1.0" to 3.0"
			Medium	M	0.38" to 0.99"
			Small	Sm	2.0mm to 0.38"
Sand		S	Coarse	Crs	0.75mm to 1.99mm
			Medium	M	0.25mm to 0.74mm
			Fine	F	0.074mm to 0.24mm
Silt		Si			0.005mm to 0.73mm
Clay		C			Smaller than 0.005mm

COHESIVE SOIL CLASSIFICATION

Classification	Symbol	Abbreviation	Major Soil Constituent. % of Dry Weight Sand	Silt	Clay
Clay		C	< than 50%	< than 50%	20%-100%
Silty Clay		SiC	< than 20%	50%-80%	20%-50%
Sandy Clay		SC	50%-80%	< than 20%	20%-50%

Consistency	Abbreviation	N	Qu (psf)
very soft	vs	0-2	< than 700
soft	s	3-4	700-1,200
stiff	st	5-8	1,201-2,000
tough	t	9-16	2,001-4,000
very tough	vt	17-30	4,001-8,000
hard	h	over 30	over 8,000

If the clay content of a soil is great enough that the clay characteristics dominate the soil mass, CLAY becomes the soil classification with the other constituents being modifying.

NON-COHESIVE SOIL CLASSIFICATION

Classification	Abbreviation	Major Soil Constituent. % of Dry Weight Sand	Silt	Clay
Silt	Si	< than 20%	80%-100%	< 20%
Sand	S	80%-100%	< 20%	< 20%

Density	Abbreviation	N
very loose	vl	0-4
loose	l	5-9
medium dense	md	10-29
dense	d	30-49
very dense	vd	≥50

If the sand or silt content of a soil is great enough, the soil becomes non-cohesive or semi-cohesive. The soil classification becomes SAND or SILT with the other soil constituents being modifying.

QUANTITY MODIFIERS

Term	Abbreviation	% of Dry Weight
trace or occasional	tr or oc	0-10%
little	li	11%-20%
some	so	21%-35%
and or with	& or w/	36%-50%

WATER LEVELS

Symbol	Explanation
	Final Water Level
WCI	Wet cave-in
DCI	Dry cave-in
WD	While drilling

DRILLING AND SAMPLING SYMBOLS AND ABBREVIATIONS

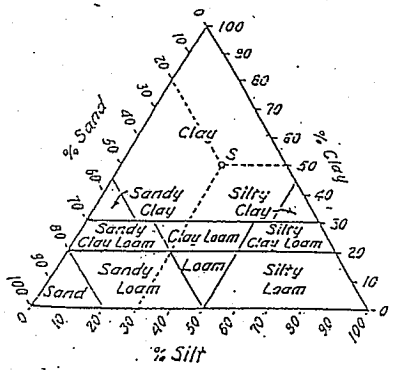
ST	Shelby tube or thin-wall tube (ASTM D 1587)	WO	Washout
SS	Split-spoon or split tube (ASTM D1586)	C	Core
A	Auger boring or auger sample	HA	Hand-auger
HS	Hollow-stem auger		
Qu	Unconfined compressive strength, pounds per square foot (psf)		
N	Standard Penetration, blows per foot of a 140# hammer, 30" drop, 2" O.D.SS		

AASHTO Classification

General Classification	Granular Materials (35% or less passing 0.075 mm)							Silt–Clay Materials (more than 35% passing 0.075 mm)			
	A-1			A-2							A-7
Group Classification	A-1-a	A-1-b	A-3	A-2-4	A-2-5	A-2-6	A-2-7	A-4	A-5	A-6	A-7-5, A-7-6
Sieve analysis: percent passing:											
2.00 mm (No. 10)	50 max.	—	—	—	—	—	—	—	—	—	—
0.425 mm (No. 40)	30 max.	50 max.	51 min.	—	—	—	—	—	—	—	—
0.075 mm (No. 200)	15 max.	25 max.	10 max.	35 max.	35 max.	35 max.	35 max.	36 min.	36 min.	36 min.	36 min.
Characteristics of fraction passing 0.425 mm (No. 40)											
Liquid limit	—	—		40 max.	41 min.	40 max.	41 min.	40 max.	41 min.	40 max.	41 min.
Plasticity index	6 max.		N.P.	10 max.	10 max.	11 min.	11 min.	10 max.	10 max.	11 min.	11 min.[1]
Usual types of significant constituent materials	Stone fragments, gravel, and sand		Fine sand	Silty or clayey gravel and sand				Silty soils			Clayey soils
General rating as subgrade	Excellent to good							Fair to poor			

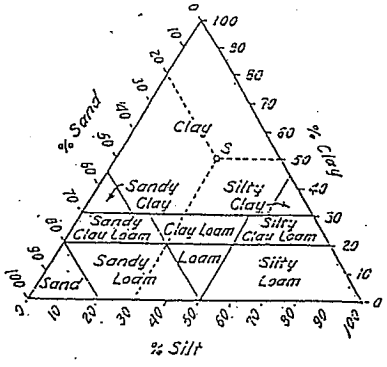
[1]Plasticity index of A-7-5 subgroup is equal to or less than LL minus 30. Plasticity index of A-7-6 subgroup is greater than LL minus 30.

IDH TEXTURAL CLASSIFICATION CHART



Classification by Texture Using IDH Data

USDA CLASIFICATION FROM IDH DATA



Size Limits (IDH)

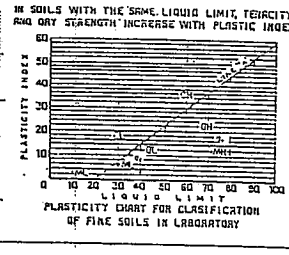
Sand	2.0 - 0.074
Silt	0.074 - 0.002
Clay	Below 0.002

TRIANGULAR TEXTURAL CLASSIFICATION SYSTEMS

ILLINOIS DIVISION OF HIGHWAYS - U.S. DEPARTMENT OF AGRICULTURE

Unified Soil Classification

Soil Characteristics			Laboratory Classification (Based on grain-size curve to quantify fractions of soil)	Group Symbol	Typical Descriptive Names
Coarse — Grained Soils (More than 50% retained by sieve No. 200)	Gravels (> 50% of coarse fraction retained by sieve No. 4)	Clean Gravel (< 5% passing sieve No. 200)	C_u greater than 4; C_u between 1 and 3	GW	Well graded gravels, gravel and sand mixtures, little or no fines
			Not satisfying all requirements for GW	GP	Poorly graded gravels, gravel-sand mixtures, little or no fines
		Gravels with Fines (> 12% passing sieve No. 200)	Atterberg limit below "A" Line or I_p less than 6	GM	Silty gravels, poorly graded gravel-sand-silt mixtures
			Atterberg limit above "A" Line with I_p greater than 6	GC	Clayey gravels, poorly graded gravel-sand-clay mixtures
	Sands (> 50% of coarse fraction passing sieve No. 4)	Clean Sand (< 5% passing sieve No. 200)	C_u greater than 6; C_c between 1 and 3	SW	Well graded sands, gravelly sands, little or no fines
			Not satisfying all requirements for SW	SP	Poorly graded sands, gravelly sands, little or no fines
		Sand with Fines (> 12% passing sieve No. 200)	Atterberg limit below "A" Line or I_p less than 6	SM	Silty sands, poorly graded sand-silt mixtures
			Atterberg limit above "A" Line with I_p greater than 6	SC	Clayey sands, poorly graded sand-clay mixtures
			Borderline cases requiring use of dual symbols		
Fine — Grained Soils (More than 50% passing sieve No. 200) Silts and Clays	Liquid limit < 50		Classification of soils on the basis of liquid limit and plasticity index	ML	Inorganic silts, rock flour, sandy silts and clayey silts with slight plasticity
				CL	Inorganic clays of low to medium plasticity, gravelly clays, sandy clays, silty clays, lean clays
				OL	Organic silts and silty clays of low plasticity
	Liquid limit > 50			MH	Inorganic silts, micaceous or diatomaceous, elastic silts
				CH	Inorganic clays of high plasticity, fat clays
				OH	Organic clays of medium to high plasticity, organic silts of medium plasticity
Highly Organic Soils				Pt	Peat and other highly organic soils



SCALE:

DATE:

DRAWN BY:

REVISED BY:

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DRAWING NUMBER

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION FOR COOPERATION WITH UTILITIES

Effective: January 1, 1999
Revised: January 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

Replace Article 105.07 of the Standard Specifications with the following:

"**105.07 Cooperation with Utilities.** The adjustment of utilities consists of the relocation, removal, replacement, rearrangements, reconstruction, improvement, disconnection, connection, shifting, new installation or altering of an existing utility facility in any manner.

When the plans or special provisions include information pertaining to the location of underground utility facilities, such information represents only the opinion of the Department as to the location of such utilities and is only included for the convenience of the bidder. The Department assumes no responsibility in respect to the sufficiency or the accuracy of the information shown on the plans relative to the location of the underground utility facilities.

Utilities which are to be adjusted shall be adjusted by the utility owner or the owner's representative or by the Contractor as a contract item. Generally, arrangements for adjusting existing utilities will be made by the Department prior to project construction; however, utilities will not necessarily be adjusted in advance of project construction and, in some cases, utilities will not be removed from the proposed construction limits. When utility adjustments must be performed in conjunction with construction, the utility adjustment work will be shown on the plans and/or covered by Special Provisions.

When the Contractor discovers a utility has not been adjusted by the owner or the owner's representative as indicated in the contract documents, or the utility is not shown on the plans or described in the Special Provisions as to be adjusted in conjunction with construction, the Contractor shall not interfere with said utility, and shall take proper precautions to prevent damage or interruption of the utility and shall promptly notify the Engineer of the nature and location of said utility.

All necessary adjustments, as determined by the Engineer, of utilities not shown on the plans or not identified by markers, will be made at no cost to the Contractor except traffic structures, light poles, etc., that are normally located within the proposed construction limits as hereinafter defined will not be adjusted unless required by the proposed improvement.

(a) Limits of Proposed Construction for Utilities Paralleling the Roadway. For the purpose of this Article, limits of proposed construction for utilities extending in the same longitudinal direction as the roadway, shall be defined as follows:

(1) The horizontal limits shall be a vertical plane, outside of, parallel to, and 600 mm (2 ft) distant at right angles from the plan or revised slope limits.

In cases where the limits of excavation for structures are not shown on the plans, the horizontal limits shall be a vertical plane 1.2 m (4 ft) outside the edges of structure footings or the structure where no footings are required.

(2) The upper vertical limits shall be the regulations governing the roadbed clearance for the specific utility involved.

(3) The lower vertical limits shall be the top of the utility at the depth below the proposed grade as prescribed by the governing agency or the limits of excavation, whichever is less.

(b) Limits of Proposed Construction for Utilities Crossing the Roadway. For the purpose of this Article, limits of proposed construction for utilities crossing the roadway in a generally transverse direction shall be defined as follows:

(1) Utilities crossing excavations for structures that are normally made by trenching such as sewers, underdrains, etc. and all minor structures such as manholes, inlets, foundations for signs, foundations for traffic signals, etc., the limits shall be the space to be occupied by the proposed permanent construction unless otherwise required by the regulations governing the specific utility involved.

(2) For utilities crossing the proposed site of major structures such as bridges, sign trusses, etc., the limits shall be as defined above for utilities extending in the same general direction as the roadway.

The Contractor may make arrangements for adjustment of utilities outside of the limits of proposed construction provided the Contractor furnishes the Department with a signed agreement with the utility owner covering the adjustments to be made. The cost of any adjustments made outside the limits of proposed construction shall be the responsibility of the Contractor unless otherwise provided.

The Contractor shall request all utility owners to field locate their facilities according to Article 107.31. The Engineer may make the request for location from the utility after receipt of notice from the Contractor. On request, the Engineer will make an inspection to verify that the utility company has field located its facilities, but will not assume responsibility for the accuracy of such work. The Contractor shall be responsible for maintaining the excavations or markers provided by the utility owners. This field location procedure may be waived if the utility owner has stated in writing to the Department it is satisfied the construction plans are sufficiently accurate. If the utility owner does not submit such statement to the Department, and they do not field locate their facilities in both horizontal and vertical alignment, the Engineer will authorize the Contractor in writing to proceed to locate the facilities in the most economical and reasonable manner, subject to the approval of the Engineer, and be paid according to Article 109.04.

The Contractor shall coordinate with any planned utility adjustment or new installation and the Contractor shall take all precautions to prevent disturbance or damage to utility facilities. Any failure on the part of the utility owner, or their representative, to proceed with any planned utility adjustment or new installation shall be reported promptly by the Contractor to the Engineer orally and in writing.

The Contractor shall take all necessary precautions for the protection of the utility facilities. The Contractor shall be responsible for any damage or destruction of utility facilities resulting from neglect, misconduct, or omission in the Contractor's manner or method of execution or nonexecution of the work, or caused by defective work or the use of unsatisfactory materials. Whenever any damage or destruction of a utility facility occurs as a result of work performed by the Contractor, the utility company will be immediately notified. The utility company will make arrangements to restore such facility to a condition equal to that existing before any such damage or destruction was done.

It is understood and agreed that the Contractor has considered in the bid all of the permanent and temporary utilities in their present and/or adjusted positions.

No additional compensation will be allowed for any delays, inconvenience, or damage sustained by the Contractor due to any interference from the said utility facilities or the operation of relocating the said utility facilities.

State of Illinois
Department of Transportation
Bureau of Local Roads and Streets

SPECIAL PROVISION FOR INSURANCE

Effective: February 1, 2007
Revised: August 1, 2007

All references to Sections or Articles in this specification shall be construed to mean specific Section or Article of the Standard Specifications for Road and Bridge Construction, adopted by the Department of Transportation.

The Contractor shall name the following entities as additional insured under the Contractor's general liability insurance policy in accordance with Article 107.27:

Village of La Grange, 53 S. La Grange Road, La Grange, Illinois 60525

The entities listed above and their officers, employees, and agents shall be indemnified and held harmless in accordance with Article 107.26.

ALKALI-SILICA REACTION FOR CAST-IN-PLACE CONCRETE (BDE)

Effective: August 1, 2007
Revised: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to precast products or precast prestressed products.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤ 0.16%	> 0.16% - 0.27%	> 0.27%
≤ 0.16%	Group I	Group II	Group III
> 0.16% - 0.27%	Group II	Group II	Group III
> 0.27%	Group III	Group III	Group IV

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.
Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

For Class PP-3 concrete the mixture options are not applicable, and any cement may be used with the specified finely divided minerals.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value = (a/100 x A) + (b/100 x B) + (c/100 x C) + ...

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C... = expansion value for that aggregate.

b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".

1) Class F Fly Ash. For Class PV, BS, MS, DS, SC, and SI concrete and cement aggregate mixture II (CAM II), Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

2) Class C Fly Ash. For Class PV, MS, SC, and SI Concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

For Class PP-1, RR, BS, and DS concrete and CAM II, Class C fly ash with less than 26.5 percent calcium oxide content shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

3) Ground Granulated Blast-Furnace Slag. For Class PV, BS, MS, SI, DS, and SC concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

For Class PP-1 and RR concrete, ground granulated blast-furnace slag shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

For Class PP-2, ground granulated blast-furnace slag shall replace 25 to 30 percent of the portland cement at a minimum replacement ratio of 1:1.

4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.

c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.

d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.

e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. For latex concrete, the ASTM C 1567 test shall be performed without the latex. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($Na_2O + 0.658K_2O$), a new ASTM C 1567 test will not be required.

Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement Concrete or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

ALKALI-SILICA REACTION FOR PRECAST AND PRECAST PRESTRESSED CONCRETE (BDE)

Effective: January 1, 2009

Description. This special provision is intended to reduce the risk of a deleterious alkali-silica reaction in precast and precast prestressed concrete exposed to humid or wet conditions. The special provision is not intended or adequate for concrete exposed to potassium acetate, potassium formate, sodium acetate or sodium formate. The special provision shall not apply to the dry environment (humidity less than 60 percent) found inside buildings for residential or commercial occupancy. The special provision shall also not apply to cast-in-place concrete.

Aggregate Expansion Values. Each coarse and fine aggregate will be tested by the Department for alkali reaction according to ASTM C 1260. The test will be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.90 percent or greater. The Engineer will determine the assigned expansion value for each aggregate, and these values will be made available on the Department's Alkali-Silica Potential Reactivity Rating List. The Engineer may differentiate aggregate based on ledge, production method, gradation number, or other factors. An expansion value of 0.05 percent will be assigned to limestone or dolomite coarse aggregates and 0.03 percent to limestone or dolomite fine aggregates (manufactured stone sand); however the Department reserves the right to perform the ASTM C 1260 test.

Aggregate Groups. Each combination of aggregates used in a mixture will be assigned to an aggregate group. The point at which the coarse aggregate and fine aggregate expansion values intersect in the following table will determine the group.

AGGREGATE GROUPS			
Coarse Aggregate or Coarse Aggregate Blend ASTM C 1260 Expansion	Fine Aggregate or Fine Aggregate Blend ASTM C 1260 Expansion		
	≤ 0.16%	> 0.16% - 0.27%	> 0.27%
≤ 0.16%	Group I	Group II	Group III
> 0.16% - 0.27%	Group II	Group II	Group III
> 0.27%	Group III	Group III	Group IV

Mixture Options. Based upon the aggregate group, the following mixture options shall be used; however, the Department may prohibit a mixture option if field performance shows a deleterious alkali-silica reaction or Department testing indicates the mixture may experience a deleterious alkali-silica reaction.

Group I - Mixture options are not applicable. Use any cement or finely divided mineral.
Group II - Mixture options 1, 2, 3, 4, or 5 shall be used.
Group III - Mixture options 1, 2 and 3 combined, 4, or 5 shall be used.

Group IV - Mixture options 1, 2 and 4 combined, or 5 shall be used.

a) Mixture Option 1. The coarse or fine aggregates shall be blended to place the material in a group that will allow the selected cement or finely divided mineral to be used.

When a coarse or fine aggregate is blended, the weighted expansion value shall be calculated separately for the coarse and fine aggregate as follows:

Weighted Expansion Value = (a/100 x A) + (b/100 x B) + (c/100 x C) + ...

Where: a, b, c... = percentage of aggregate in the blend;
A, B, C...= expansion value for that aggregate.

b) Mixture Option 2. A finely divided mineral shall be used as described in 1), 2), 3), or 4) that follow. The replacement ratio is defined as "finely divided mineral:portland cement".

1) Class F Fly Ash. For Class PC concrete, precast products, and PS concrete, Class F fly ash shall replace 15 percent of the portland cement at a minimum replacement ratio of 1.5:1.

2) Class C Fly Ash. For Class PC Concrete, precast products, and Class PS concrete, Class C fly ash with 18 percent to less than 26.5 percent calcium oxide content, and less than 2.0 percent loss on ignition, shall replace 20 percent of the portland cement at a minimum replacement ratio of 1:1; or at a minimum replacement ratio of 1.25:1 if the loss on ignition is 2.0 percent or greater. Class C fly ash with less than 18 percent calcium oxide content shall replace 20 percent of the portland cement at a minimum replacement ratio of 1.25:1.

3) Ground Granulated Blast-Furnace Slag. For Class PC concrete, precast products, and Class PS concrete, ground granulated blast-furnace slag shall replace 25 percent of the portland cement at a minimum replacement ratio of 1:1.

4) Microsilica or High Reactivity Metakaolin. Microsilica solids or high reactivity metakaolin shall be added to the mixture at a minimum 25 lb/cu yd (15 kg/cu m) or 27 lb/cu yd (16 kg/cu m) respectively.

c) Mixture Option 3. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.60 percent. When aggregate in Group II is involved, any finely divided mineral may be used with a portland cement.

d) Mixture Option 4. The cement used shall have a maximum total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.45 percent. When aggregate in Group II or III is involved, any finely divided mineral may be used with a portland cement.

e) Mixture Option 5. The proposed cement or finely divided mineral may be used if the ASTM C 1567 expansion value is ≤ 0.16 percent when performed on the aggregate in

the concrete mixture with the highest ASTM C 1260 test result. The ASTM C 1567 test will be valid for two years, unless the Engineer determines the materials have changed significantly. The 0.20 percent autoclave expansion limit in ASTM C 1567 shall not apply.

If during the two year time period the Contractor needs to replace the cement, and the replacement cement has an equal or lower total equivalent alkali content ($Na_2O + 0.658K_2O$), a new ASTM C 1567 test will not be required.

~~Testing. If an individual aggregate has an ASTM C 1260 expansion value > 0.16 percent, an~~ ASTM C 1293 test may be performed by the Contractor to evaluate the Department's ASTM C 1260 test result. The ASTM C 1293 test shall be performed with Type I or II cement having a total equivalent alkali content ($Na_2O + 0.658K_2O$) of 0.80 percent or greater. The interior vertical wall of the ASTM C 1293 recommended container (pail) shall be half covered with a wick of absorbent material consisting of blotting paper. If the testing laboratory desires to use an alternate container or wick of absorbent material, ASTM C 1293 test results with an alkali-reactive aggregate of known expansion characteristics shall be provided to the Engineer for review and approval. If the expansion is less than 0.040 percent after one year, the aggregate will be assigned an ASTM C 1260 expansion value of 0.08 percent that will be valid for two years, unless the Engineer determines the aggregate has changed significantly.

The Engineer reserves the right to verify a Contractor's ASTM C 1293 or 1567 test result. The Engineer will not accept the result if the precision and bias for the test methods are not met.

The laboratory performing the ASTM C 1567 test shall either be accredited by the AASHTO Materials Reference Laboratory (AMRL) for ASTM C 227 under Portland Cement or Aggregate; or shall be inspected for Hydraulic Cement - Physical Tests by the Cement and Concrete Reference Laboratory (CCRL) and shall be approved by the Department. The laboratory performing the ASTM C 1293 test shall be inspected for Portland Cement Concrete by CCRL and shall be approved by the Department.

80213

APPROVAL OF PROPOSED BORROW AREAS, USE AREAS, AND/OR WASTE AREAS INSIDE ILLINOIS STATE BORDERS (BDE)

Effective: November 1, 2008

Revise the title of Article 107.22 of the Standard Specifications to read:

"107.22 Approval of Proposed Borrow Areas, Use Areas, and/or Waste Areas Inside Illinois State Borders."

Add the following sentence to the end of the first paragraph of Article 107.22 of the Standard Specifications:

"Proposed borrow areas, use areas, and/or waste areas outside of Illinois shall comply with Article 107.01."

80207

CEMENT (BDE)

Effective: January 1, 2007
Revised: April 1, 2009

Revise Section 1001 of the Standard Specifications to read:

"SECTION 1001. CEMENT

~~**1001.01 Cement Types.** Cement shall be according to the following.~~

(a) Portland Cement. Acceptance of portland cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland cement shall be according to ASTM C 150, and shall meet the standard physical and chemical requirements. Type I or Type II may be used for cast-in-place, precast, and precast prestressed concrete. Type III may be used according to Article 1020.04, or when approved by the Engineer. All other cements referenced in ASTM C 150 may be used when approved by the Engineer.

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. The total of all inorganic processing additions shall be a maximum of 4.0 percent by weight (mass) of the cement. However, a cement kiln dust inorganic processing addition shall be limited to a maximum of 1.0 percent. Organic processing additions shall be limited to grinding aids that improve the flowability of cement, reduce pack set, and improve grinding efficiency. Inorganic processing additions shall be limited to granulated blast-furnace slag according to the chemical requirements of AASHTO M 302, Class C fly ash according to the chemical requirements of AASHTO M 295, and cement kiln dust.

(b) Portland-Pozzolan Cement. Acceptance of portland-pozzolan cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland-pozzolan cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IP may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The pozzolan constituent for Type IP shall be a maximum of 21 percent of the weight (mass) of the portland-pozzolan cement.

For cast-in-place construction, portland-pozzolan cement shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-

reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

(c) Portland Blast-Furnace Slag Cement. Acceptance of portland blast-furnace slag cement shall be according to the current Bureau of Materials and Physical Research's Policy Memorandum, "Portland or Blended Cement Acceptance Procedure for Qualified and Non-Qualified Plants".

Portland blast-furnace slag cement shall be according to ASTM C 595 and shall meet the standard physical and chemical requirements. Type IS portland blast-furnace slag cement may be used for cast-in-place, precast, and precast prestressed concrete, except when Class PP concrete is used. The blast-furnace slag constituent for Type IS shall be a maximum of 25 percent of the weight (mass) of the portland blast-furnace slag cement.

For cast-in-place construction, portland blast-furnace slag cement shall not be used in concrete mixtures when the air temperature is below 40 °F (4 °C) without permission of the Engineer. If permission is given, the mix design strength requirement may require the Contractor to increase the cement or eliminate the cement factor reduction for a water-reducing or high range water-reducing admixture which is permitted according to Article 1020.05(b).

The total of all organic processing additions shall be a maximum of 1.0 percent by weight (mass) of the cement. Organic processing additions shall be limited to grinding aids as defined in (a) above. Inorganic processing additions shall be limited to cement kiln dust at a maximum of 1.0 percent.

(d) Rapid Hardening Cement. Rapid hardening cement shall be used according to Article 1020.04 or when approved by the Engineer. The cement shall be on the Department's current "Approved List of Packaged, Dry, Rapid Hardening Cementitious Materials for Concrete Repairs", and shall be according to the following.

(1) The cement shall have a maximum final set of 25 minutes, according to Illinois Modified ASTM C 191.

(2) The cement shall have a minimum compressive strength of 2000 psi (13,800 kPa) at 3.0 hours, 3200 psi (22,100 kPa) at 6.0 hours, and 4000 psi (27,600 kPa) at 24.0 hours, according to Illinois Modified ASTM C 109.

(3) The cement shall have a maximum drying shrinkage of 0.050 percent at seven days, according to Illinois Modified ASTM C 596.

(4) The cement shall have a maximum expansion of 0.020 percent at 14 days, according to Illinois Modified ASTM C 1038.

(5) The cement shall have a minimum 80 percent relative dynamic modulus of elasticity; and shall not have a weight (mass) gain in excess of 0.15 percent or a weight (mass) loss in excess of 1.0 percent, after 100 cycles, according to AASHTO T 161, Procedure B.

(e) Calcium Aluminate Cement. Calcium aluminate cement shall be used only where specified by the Engineer. The cement shall meet the standard physical requirements for Type I cement according to ASTM C 150, except the time of setting shall not apply. The chemical requirements shall be determined according to ASTM C 114 and shall be as follows: minimum 38 percent aluminum oxide (Al_2O_3), maximum 42 percent calcium oxide (CaO), maximum 1 percent magnesium oxide (MgO), maximum 0.4 percent sulfur trioxide (SO_3), maximum 1 percent loss on ignition, and maximum 3.5 percent insoluble residue.

1001.02 Uniformity of Color. Cement contained in single loads or in shipments of several loads to the same project shall not have visible differences in color.

1001.03 Mixing Brands and Types. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall not be mixed or used alternately in the same item of construction unless approved by the Engineer.

1001.04 Storage. Cement shall be stored and protected against damage, such as dampness which may cause partial set or hardened lumps. Different brands or different types of cement from the same manufacturing plant, or the same brand or type from different plants shall be kept separate."

80166

CONCRETE ADMIXTURES (BDE)

Effective: January 1, 2003
Revised: April 1, 2009

Replace the first paragraph of Article 1020.05(b) of the Standard Specifications to read:

"(b) Admixtures. The use of admixtures to increase the workability or to accelerate the hardening of the concrete will be permitted when approved by the Engineer. Admixture dosages shall result in the mixture meeting the specified plastic and hardened properties. The Department will maintain an Approved List of Corrosion Inhibitors. Corrosion inhibitor dosage rates shall be according to Article 1020.05(b)(12). The Department will also maintain an Approved List of Concrete Admixtures, and an admixture technical representative shall be consulted when determining an admixture dosage from this list. The dosage shall be within the range indicated on the approved list unless the influence by other admixtures, jobsite conditions (such as a very short haul time), or other circumstances warrant a dosage outside the range. The Engineer shall be notified when a dosage is proposed outside the range. To determine an admixture dosage, air temperature, concrete temperature, cement source and quantity, finely divided mineral sources(s) and quantity, influence of other admixtures, haul time, placement conditions, and other factors as appropriate shall be considered. The Engineer may request the Contractor to have a batch of concrete mixed in the lab or field to verify the admixture dosage is correct. An admixture dosage or combination of admixture dosages shall not delay the initial set of concrete by more than one hour. When a retarding admixture is required or appropriate for a bridge deck or bridge deck overlay pour, the initial set time shall be delayed until the deflections due to the concrete dead load are no longer a concern for inducing cracks in the completed work. However, a retarding admixture shall not be used to further extend the pour time and justify the alteration of a bridge deck pour sequence.

When determining water in admixtures for water/cement ratio, the Contractor shall calculate 70 percent of the admixture dosage as water, except a value of 50 percent shall be used for a latex admixture used in bridge deck latex concrete overlays."

Revise Section 1021 of the Standard Specifications to read:

"SECTION 1021. CONCRETE ADMIXTURES

1021.01 General. Admixtures shall be furnished in liquid form ready for use. The admixtures shall be delivered in the manufacturer's original containers, bulk tank trucks or such containers or tanks as are acceptable to the Engineer. Delivery shall be accompanied by a ticket which clearly identifies the manufacturer and trade name of the material. Containers shall be readily identifiable as to manufacturer and trade name of the material they contain.

Corrosion inhibitors will be maintained on the Department's Approved List of Corrosion Inhibitors. All other concrete admixture products will be maintained on the Department's

Approved List of Concrete Admixtures. For the admixture submittal, a report prepared by an independent laboratory accredited by the AASHTO Materials Reference Laboratory (AMRL) for Portland Cement Concrete shall be provided. The report shall show the results of physical tests conducted no more than five years prior to the time of submittal, according to applicable specifications. However, for corrosion inhibitors the ASTM G 109 test information specified in ASTM C 1582 is not required to be from and independent lab. All other information in ASTM C 1582 shall be from and independent lab.

Tests shall be conducted using materials and methods specified on a "test" concrete and a "reference" concrete, together with a certification that no changes have been made in the formulation of the material since the performance of the tests. Per the manufacturer's option, the cement content for all required tests shall either be according to applicable specifications or 5.65 cwt/cu yd (335 kg/cu m). Compressive strength test results for six months and one year will not be required.

Prior to the approval of an admixture, the Engineer reserves the right to request a sample for testing. The test and reference concrete mixtures tested by the Engineer will contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). For freeze-thaw testing, the Department will perform the test according to AASHTO T 161, Procedure B. The flexural strength test will be performed according to AASHTO T 177. If the Engineer decides to test the admixture, the manufacturer shall submit AASHTO T 197 water content and set time test results on the standard cement used by the Department. The test and reference concrete mixture shall contain a cement content of 5.65 cwt/cu yd (335 kg/cu m). The manufacturer may select their lab or an independent lab to perform this testing. The laboratory is not required to be accredited by AASHTO.

The manufacturer shall include in the submittal the following admixture information: the manufacturing range for specific gravity, the midpoint and manufacturing range for residue by oven drying, and the manufacturing range for pH. The submittal shall also include an infrared spectrophotometer trace no more than five years old.

For air-entraining admixtures according to Article 1021.02, the specific gravity allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM C 494. For residue by oven drying and pH, the allowable manufacturing range and test methods shall be according to ASTM C 260.

For admixtures according to Articles 1021.03, 1021.04, 1021.05, 1021.06, and 1021.07, the pH allowable manufacturing range shall be established by the manufacturer and the test method shall be according to ASTM E 70. For specific gravity and residue by oven drying, the allowable manufacturing range and test methods shall be according to ASTM C 494.

When test results are more than seven years old, the manufacturer shall re-submit the infrared spectrophotometer trace and the report prepared by an independent laboratory accredited by AASHTO.

All admixtures, except chloride-based accelerators, shall contain a maximum of 0.3 percent chloride by weight (mass).

Random field samples may be taken by the Department to verify an admixture meets specification. A split sample will be provided to the manufacturer if requested. Admixtures that do not meet specification requirements or an allowable manufacturing range established by the manufacturer shall be replaced with new material.

1021.02Air-Entraining Admixtures. Air-entraining admixtures shall be according to AASHTO M 154.

1021.03Retarding and Water-Reducing Admixtures. The admixture shall be according to the following.

(a) The retarding admixture shall be according to AASHTO M 194, Type B (retarding) or Type D (water-reducing and retarding).

(b) The water-reducing admixture shall be according to AASHTO M 194, Type A.

(c) The high range water-reducing admixture shall be according to AASHTO M 194, Type F (high range water-reducing) or Type G (high range water-reducing and retarding).

1021.04Accelerating Admixtures. The admixture shall be according to AASHTO M 194, Type C (accelerating) or Type E (water reducing and accelerating).

1021.05Self-Consolidating Admixtures. The self-consolidating admixture system shall consist of either a high range water-reducing admixture only or a high range water-reducing admixture combined with a separate viscosity modifying admixture. The one or two component admixture system shall be capable of producing a concrete mixture that can flow around reinforcement and consolidate under its own weight without additional effort and without segregation.

The high range water-reducing admixture shall be according to AASHTO M 194, Type F.

The viscosity modifying admixture shall be according to ASTM C 494, Type S (specific performance).

1021.06Rheology-Controlling Admixture. The rheology-controlling admixture shall be capable of producing a concrete mixture with a lower yield stress that will consolidate easier for slipform applications used by the Contractor. The rheology-controlling admixture shall be according to ASTM C 494, Type S (specific performance).

1021.07Corrosion Inhibitor. The corrosion inhibitor shall be according to one of the following.

(a) Calcium Nitrite. The corrosion inhibitor shall contain a minimum 30 percent calcium nitrite by weight (mass) of solution, and shall comply with the requirements of AASHTO M 194, Type C (accelerating).

(b) Other Materials. The corrosion inhibitor shall be according to ASTM C 1582."

80094

CONSTRUCTION AIR QUALITY - DIESEL VEHICLE EMISSIONS CONTROL (BDE)

Effective: April 1, 2009
Revised: July 1, 2009

Diesel Vehicle Emissions Control. The reduction of construction air emissions shall be accomplished by using cleaner burning diesel fuel. The term "equipment" refers to any and all diesel fuel powered devices rated at 50 hp and above, to be used on the project site in excess of seven calendar days over the course of the construction period on the project site (including any "rental" equipment).

All equipment on the jobsite, with engine ratings of 50 hp and above, shall be required to: use Ultra Low Sulfur Diesel fuel (ULSD) exclusively (15 ppm sulfur content or less).

Diesel powered equipment in non-compliance will not be allowed to be used on the project site, and is also subject to a notice of non-compliance as outlined below.

The Contractor shall submit copies of monthly summary reports and include certified copies of the ULSD diesel fuel delivery slips for diesel fuel delivered to the jobsite for the reporting time period, noting the quantity of diesel fuel used.

If any diesel powered equipment is found to be in non-compliance with any portion of this specification, the Engineer will issue the Contractor a notice of non-compliance and identify an appropriate period of time, as outlined below under environmental deficiency deduction, in which to bring the equipment into compliance or remove it from the project site.

Any costs associated with bringing any diesel powered equipment into compliance with these diesel vehicle emissions controls shall be considered as included in the contract unit prices bid for the various items of work involved and no additional compensation will be allowed. The Contractor's compliance with this notice and any associated regulations shall also not be grounds for a claim.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists, he/she will notify the Contractor in writing, and direct the Contractor to correct the deficiency within a specified time period. The specified time-period, which begins upon Contractor notification, will be from 1/2 hour to 24 hours long, based on the urgency of the situation and the nature of the deficiency. The Engineer shall be the sole judge regarding the time period.

The deficiency will be based on lack of repair, maintenance and diesel vehicle emissions control.

If the Contractor fails to correct the deficiency within the specified time frame, a daily monetary deduction will be imposed for each calendar day or fraction thereof the deficiency continues to exist. The calendar day(s) will begin when the time period for correction is exceeded and end

with the Engineer's written acceptance of the correction. The daily monetary deduction will be $1,000.00 for each deficiency identified.

If a Contractor or subcontractor accumulates three environmental deficiency deductions in a contract period, the Contractor will be shutdown until the deficiency is corrected. Such a shutdown will not be grounds for any extension of contract time, waiver of penalties, or be grounds for any claim.

80237

CONSTRUCTION AIR QUALITY - IDLING RESTRICTIONS (BDE)

Effective: April 1, 2009

Idling Restrictions. The Contractor shall establish truck-staging areas for all diesel powered vehicles that are waiting to load or unload material at the jobsite. Staging areas shall be located where the diesel emissions from the equipment will have a minimum impact on adjacent sensitive receptors. The Department will review the selection of staging areas, whether within or outside the existing highway right-of-way, to avoid locations near sensitive areas or populations to the extent possible. Sensitive receptors include, but are not limited to, hospitals, schools, residences, motels, hotels, daycare facilities, elderly housing and convalescent facilities. Diesel powered engines shall also be located as far away as possible from fresh air intakes, air conditioners, and windows. The Engineer will approve staging areas before implementation.

Diesel powered vehicle operators may not cause or allow the motor vehicle, when it is not in motion, to idle for more than a total of 10 minutes within any 60 minute period, except under any of the following circumstances:

1) The motor vehicle has a gross vehicle weight rating of less than 8000 lb (3630 kg).
2) The motor vehicle idles while forced to remain motionless because of on-highway traffic, an official traffic control device or signal, or at the direction of a law enforcement official.
3) The motor vehicle idles when operating defrosters, heaters, air conditioners, or other equipment solely to prevent a safety or health emergency.
4) A police, fire, ambulance, public safety, other emergency or law enforcement motor vehicle, or any motor vehicle used in an emergency capacity, idles while in an emergency or training mode and not for the convenience of the vehicle operator.
5) The primary propulsion engine idles for maintenance, servicing, repairing, or diagnostic purposes if idling is necessary for such activity.
6) A motor vehicle idles as part of a government inspection to verify that all equipment is in good working order, provided idling is required as part of the inspection.
7) When idling of the motor vehicle is required to operate auxiliary equipment to accomplish the intended use of the vehicle (such as loading, unloading, mixing, or processing cargo; controlling cargo temperature; construction operations, lumbering operations; oil or gas well servicing; or farming operations), provided that this exemption does not apply when the vehicle is idling solely for cabin comfort or to operate non-essential equipment such as air conditioning, heating, microwave ovens, or televisions.
8) When the motor vehicle idles due to mechanical difficulties over which the operator has no control.
9) The outdoor temperature is less than 32 °F (0 °C) or greater than 80 °F (26 °C).

When the outdoor temperature is greater than or equal to 32 °F (0 °C) or less than or equal to 80 °F (26 °C), a person who operates a motor vehicle operating on diesel fuel shall not cause or allow the motor vehicle to idle for a period greater than 30 minutes in any 60 minute period while waiting to weigh, load, or unload cargo or freight, unless the vehicle is in a line of vehicles that regularly and periodically moves forward.

The above requirements do not prohibit the operation of an auxiliary power unit or generator set as an alternative to idling the main engine of a motor vehicle operating on diesel fuel.

Environmental Deficiency Deduction. When the Engineer is notified, or determines that an environmental control deficiency exists based on non-compliance with the idling restrictions, he/she will notify the Contractor, and direct the Contractor to correct the deficiency.

If the Contractor fails to correct the deficiency a monetary deduction will be imposed. The monetary deduction will be $1,000.00 for each deficiency identified.

80239

DETERMINATION OF THICKNESS (BDE)

Effective: April 1, 2009

Revise Articles 353.12 and 353.13 of the Standard Specifications to Articles 353.13 and 353.14 respectively.

Add the following Article to the Standard Specifications:

"**353.12 Tolerance in Thickness.** The thickness of base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction, bike paths, and individual locations less than 500 ft (150 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness.

The procedure described in Article 407.10(b) will be followed, except the option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 354.09 of the Standard Specifications to read:

"**354.09 Tolerance in Thickness.** The thickness of base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated. Temporary construction is defined as those areas constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course widening thickness.

The procedure described in Article 407.10(b) will be followed, except:

(a) The width of a unit shall be the width of the widening along one edge of the pavement.

(b) The length of the unit shall be 1000 ft (300 m).

(c) The option of correcting deficient pavement with additional lift(s) shall not apply."

Revise Article 355.09 of the Standard Specifications to read:

"**355.09 Tolerance in Thickness.** The thickness of HMA base course pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 500 ft (150 m) long, will be evaluated according to Article 407.10(b). Temporary construction is defined as those areas constructed and removed under the same contract. If the base course cannot be cored for thickness prior to

placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s), and subtract them from the measured core thickness to determine the base course thickness."

Revise Article 356.07 of the Standard Specifications to read:

"**356.07 Tolerance in Thickness.** The thickness of HMA base course widening pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous area, except for temporary construction; bike paths and individual locations less than 3 ft (1 m) wide or 1000 ft (300 m) long, will be evaluated according to Article 407.10(b) except, the width of a unit shall be the width of the widening along one edge of the pavement and the length of a unit shall be 1000 ft (300 m). Temporary locations are defined as those constructed and removed under the same contract. If the base course widening cannot be cored for thickness prior to placement of the cover layer(s), the Engineer will determine the thickness of the cover layer(s)and subtract them from the measured core thickness to determine the base course widening thickness."

Revise Article 407.10 of the Standard Specifications to read:

"**407.10 Tolerance in Thickness.** Determination of pavement thickness shall be performed after the pavement surface tests and corrective action have been completed according to Article 407.09. Pay adjustments made for pavement thickness will be in addition to and independent of those made for pavement smoothness. Pavement pay items that individually contain at least 1000 sq yd (840 sq m) of contiguous pavement shall be evaluated with the following exclusions: temporary pavements; variable width pavements; radius returns; short lengths of contiguous pavements less than 500 ft (125 m) in length; and constant width portions of turn lanes less than 500 ft (125 m) in length. Temporary pavements are defined as pavements constructed and removed under the same contract.

The method described in Article 407.10(a), shall be used except for those pavements constructed in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m). The method described in Article 407.10(b) shall be used in areas where access to side streets and entrances necessitates construction in segments less than 1000 ft (300 m).

(a) Percent Within Limits. The percent within limits (PWL) method shall be as follows.

(1) Lots and Sublots. The pavement will be divided into approximately equal lots of not more than 5000 ft (1500 m) in length. When the length of a continuous strip of pavement is 500 ft (150 m) or greater but less than 5000 ft (1500 m), these short lengths of pavement, ramps, turn lanes, and other short sections of continuous pavement will be grouped together to form lots approximately 5000 ft (1500 m) in length. Short segments between structures will be measured continuously with the structure segments omitted. Each lot will be subdivided into ten equal sublots. The width of a sublot and lot will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.

(2) Cores. Cores 2 in. (50 mm) in diameter shall be taken from the pavement by the Contractor, at locations selected by the Engineer. The exact location for each core will be selected at random, but will result in one core per sublot. Core locations will be specified prior to beginning the coring operations.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the core lengths. The cores will be measured with a device supplied by the Department immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples shall be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

(3) Deficient Sublot. When the length of the core in a sublot is deficient by more than ten percent of plan thickness, the Contractor may take three additional cores within that sublot at locations selected at random by the Engineer. If the Contractor chooses not to take additional cores, the pavement in that sublot shall be removed and replaced.

When the three additional cores are taken, the length of those cores will be averaged with the original core length. If the average shows the sublot to be deficient by ten percent or less, no additional action is necessary. If the average shows the sublot to be deficient by more than ten percent, the pavement in that sublot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient sublots to remain in place. For deficient sublots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient sublot is removed and replaced, or additional lifts are placed, the corrected sublot shall be retested for thickness. The length of the new core taken in the sublot will be used in determining the PWL for the lot.

When a deficient sublot is left in place, and no additional lift(s) are placed, no payment will be made for the deficient sublot. The length of the original core taken in the sublot will be used in determining the PWL for the lot.

(4) Deficient Lot. After addressing deficient sublots, the PWL for each lot will be determined. When the PWL of a lot is 60 percent or less, the pavement in that lot shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such deficient lots to remain in place.

For deficient lots allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When a deficient lot is removed and replaced, or additional lifts are placed, the corrected lot shall be retested for thickness. The PWL for the lot will then be recalculated based upon the new cores; however, the pay factor for the lot shall be a maximum of 100 percent.

When a deficient lot is left in place, and no additional lift(s) are placed, the PWL for the lot will not be recalculated.

(5) Right of Discovery. When the Engineer has reason to believe the random core selection process will not accurately represent the true conditions of the work, he/she may order additional cores. The additional cores shall be taken at specific locations determined by the Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action. The need for, and location of, additional cores will be determined prior to commencement of coring operations.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, more additional cores shall be taken to determine the limits of the deficient pavement and that area shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the sublot. An acceptable core is a core with a length of at least 90 percent of plan thickness.

For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement.

When the additional cores show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

(6) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are placed, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness.

(7) Determination of PWL. The PWL for each lot will be determined as follows.

Definitions:

x_i = Individual values (core lengths) under consideration
n = Number of individual values under consideration (10 per lot)
$\bar{x}$ = Average of the values under consideration
LSL = Lower Specification Limit (98% of plan thickness)
Q_L = Lower Quality Index
S = Sample Standard Deviation
PWL = Percent Within Limits

Determine $\bar{x}$ for the lot to the nearest two decimal places.

Determine S for the lot to the nearest three decimal places using:

$$S = \sqrt{\frac{\Sigma(x_i - \bar{x})^2}{n-1}} \quad \text{where} \quad \Sigma(x_i - \bar{x})^2 = (x_1 - \bar{x})^2 + (x_2 - \bar{x})^2 + \ldots\ldots + (x_{10} - \bar{x})^2$$

Determine Q_L for the lot to the nearest two decimal places using:

$$Q_L = \frac{(\bar{x} - LSL)}{S}$$

Determine PWL for the lot using the Q_L and the following table. For Q_L values less than zero the value shown in the table must be subtracted from 100 to obtain PWL.

(8) Pay Factors. The pay factor (PF) for each lot will be determined, to the nearest two decimal places, using:

PF (in percent) = 55 + 0.5 (PWL)

If $\bar{x}$ for a lot is less than the plan thickness, the maximum PF for that lot shall be 100 percent.

(9) Payment. Payment of incentive or disincentive for pay items subject to the PWL method will be calculated using:

Payment = (((TPF/100)-1) x CUP) x (TOTPAVT - DEFPAVT)

TPF = Total Pay Factor

CUP = Contract Unit Price
TOTPAVT = Area of Pavement Subject to Coring
DEFPAVT = Area of Deficient Pavement

The TPF for the pavement shall be the average of the PF for all the lots; however, the TPF shall not exceed 102 percent.

Area of Deficient pavement (DEFPAVT) is defined as an area of pavement represented by a sublot deficient by more than ten percent which is left in place with no additional thickness added.

Area of Pavement Subject to Coring (TOTPAVT) is defined as those pavement areas included in lots for pavement thickness determination.

PERCENT WITHIN LIMITS							
Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)
0.00	50.00	0.40	65.07	0.80	78.43	1.20	88.76
0.01	50.38	0.41	65.43	0.81	78.72	1.21	88.97
0.02	50.77	0.42	65.79	0.82	79.02	1.22	89.17
0.03	51.15	0.43	66.15	0.83	79.31	1.23	89.38
0.04	51.54	0.44	66.51	0.84	79.61	1.24	89.58
0.05	51.92	0.45	66.87	0.85	79.90	1.25	89.79
0.06	52.30	0.46	67.22	0.86	80.19	1.26	89.99
0.07	52.69	0.47	67.57	0.87	80.47	1.27	90.19
0.08	53.07	0.48	67.93	0.88	80.76	1.28	90.38
0.09	53.46	0.49	68.28	0.89	81.04	1.29	90.58
0.10	53.84	0.50	68.63	0.90	81.33	1.30	90.78
0.11	54.22	0.51	68.98	0.91	81.61	1.31	90.96
0.12	54.60	0.52	69.32	0.92	81.88	1.32	91.15
0.13	54.99	0.53	69.67	0.93	82.16	1.33	91.33
0.14	55.37	0.54	70.01	0.94	82.43	1.34	91.52
0.15	55.75	0.55	70.36	0.95	82.71	1.35	91.70
0.16	56.13	0.56	70.70	0.96	82.97	1.36	91.87
0.17	56.51	0.57	71.04	0.97	83.24	1.37	92.04
0.18	56.89	0.58	71.38	0.98	83.50	1.38	92.22
0.19	57.27	0.59	71.72	0.99	83.77	1.39	92.39
0.20	57.65	0.60	72.06	1.00	84.03	1.40	92.56
0.21	58.03	0.61	72.39	1.01	84.28	1.41	92.72
0.22	58.40	0.62	72.72	1.02	84.53	1.42	92.88
0.23	58.78	0.63	73.06	1.03	84.79	1.43	93.05
0.24	59.15	0.64	73.39	1.04	85.04	1.44	93.21
0.25	59.53	0.65	73.72	1.05	85.29	1.45	93.37
0.26	59.90	0.66	74.04	1.06	85.53	1.46	93.52
0.27	60.28	0.67	74.36	1.07	85.77	1.47	93.67
0.28	60.65	0.68	74.69	1.08	86.02	1.48	93.83
0.29	61.03	0.69	75.01	1.09	86.26	1.49	93.98
0.30	61.40	0.70	75.33	1.10	86.50	1.50	94.13
0.31	61.77	0.71	75.64	1.11	86.73	1.51	94.27
0.32	62.14	0.72	75.96	1.12	86.96	1.52	94.41
0.33	62.51	0.73	76.27	1.13	87.20	1.53	94.54
0.34	62.88	0.74	76.59	1.14	87.43	1.54	94.68
0.35	63.25	0.75	76.90	1.15	87.66	1.55	94.82
0.36	63.61	0.76	77.21	1.16	87.88	1.56	94.95
0.37	63.98	0.77	77.51	1.17	88.10	1.57	95.08
0.38	64.34	0.78	77.82	1.18	88.32	1.58	95.20
0.39	64.71	0.79	78.12	1.19	88.54	1.59	95.33

*For Q_L values less than zero, subtract the table value from 100 to obtain PWL

PERCENT WITHIN LIMITS (continued)					
Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)	Quality Index (Q_L)*	Percent Within Limits (PWL)
1.60	95.46	2.00	98.83	2.40	99.89
1.61	95.58	2.01	98.88	2.41	99.90
1.62	95.70	2.02	98.92	2.42	99.91
1.63	95.81	2.03	98.97	2.43	99.91
1.64	95.93	2.04	99.01	2.44	99.92
1.65	96.05	2.05	99.06	2.45	99.93
1.66	96.16	2.06	99.10	2.46	99.94
1.67	96.27	2.07	99.14	2.47	99.94
1.68	96.37	2.08	99.18	2.48	99.95
1.69	96.48	2.09	99.22	2.49	99.95
1.70	96.59	2.10	99.26	2.50	99.96
1.71	96.69	2.11	99.29	2.51	99.96
1.72	96.78	2.12	99.32	2.52	99.97
1.73	96.88	2.13	99.36	2.53	99.97
1.74	96.97	2.14	99.39	2.54	99.98
1.75	97.07	2.15	99.42	2.55	99.98
1.76	97.16	2.16	99.45	2.56	99.98
1.77	97.25	2.17	99.48	2.57	99.98
1.78	97.33	2.18	99.50	2.58	99.99
1.79	97.42	2.19	99.53	2.59	99.99
1.80	97.51	2.20	99.56	2.60	99.99
1.81	97.59	2.21	99.58	2.61	99.99
1.82	97.67	2.22	99.61	2.62	99.99
1.83	97.75	2.23	99.63	2.63	100.00
1.84	97.83	2.22	99.66	2.64	100.00
1.85	97.91	2.25	99.68	≥ 2.65	100.00
1.86	97.98	2.26	99.70		
1.87	98.05	2.27	99.72		
1.88	98.11	2.28	99.73		
1.89	98.18	2.29	99.75		
1.90	98.25	2.30	99.77		
1.91	98.31	2.31	99.78		
1.92	98.37	2.32	99.80		
1.93	98.44	2.33	99.81		
1.94	98.50	2.34	99.83		
1.95	98.56	2.35	99.84		
1.96	98.61	2.36	99.85		
1.97	98.67	2.37	99.86		
1.98	98.72	2.38	99.87		
1.99	98.78	2.39	99.88		

*For Q_L values less than zero, subtract the table value from 100 to obtain PWL

(b) Minimum Thickness. The minimum thickness method shall be as follows.

(1) Length of Units. The length of a unit will be a continuous strip of pavement 500 ft (150 m) in length.

(2) Width of Units. The width of a unit will be the width from the pavement edge to the adjacent lane line, from one lane line to the next, or between pavement edges for single-lane pavements.

(3) Thickness Measurements. Pavement thickness will be based on 2 in. (50 mm) diameter cores.

Cores shall be taken from the pavement by the Contractor at locations selected by the Engineer. When determining the thickness of a unit, one core shall be taken in each unit.

The Contractor and the Engineer shall witness the coring operations, as well as the measuring and recording of the cores. Core measurements will be determined immediately upon removal from the core bit and prior to moving to the next core location. Upon concurrence of the length, the core samples may be disposed of according to Article 202.03.

Upon completion of each core, all water shall be removed from the hole and the hole then filled with a rapid hardening mortar or concrete. The material shall be mixed in a separate container, placed in the hole, consolidated by rodding, and struck-off flush with the adjacent pavement.

(4) Unit Deficient in Thickness. In considering any portion of the pavement that is deficient, the entire limits of the unit will be used in computing the deficiency or determining the remedial action required.

(5) Thickness Equals or Exceeds Specified Thickness. When the thickness of a unit equals or exceeds the specified plan thickness, payment will be made at the contract unit price per square yard (square meter) for the specified thickness.

(6) Thickness Deficient by Ten Percent or Less. When the thickness of a unit is less than the specified plan thickness by ten percent or less, a deficiency deduction will be assessed against payment for the item involved. The deficiency will be a percentage of the contract unit price as given in the following table.

Percent Deficiency (of Plan Thickness)	Percent Deduction (of Contract Unit Price)
0.0 to 2.0	0
2.1 to 3.0	20
3.1 to 4.0	28
4.1 to 5.0	32
5.1 to 7.5	43
7.6 to 10.0	50

(7) Thickness Deficient by More than Ten Percent. When a core shows the pavement to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient pavement. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient pavement. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient pavement will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient pavement shall be removed and replaced; however, when requested in writing by the Contractor, the Engineer may permit in writing such areas of deficient pavement to remain in place. For deficient areas allowed to remain in place, additional lift(s) may be placed, at no additional cost to the Department, to bring the deficient pavement to plan thickness when the Engineer determines grade control conditions will permit such lift(s). The area(s) to be overlaid, material to be used, thickness(es) of the lift(s), and method of placement will be approved by the Engineer.

When an area of deficient pavement is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness. The thickness of the new core will be used to determine the pay factor for the corrected area.

When an area of deficient pavement is left in place, and no additional lift(s) are placed, no payment will be made for the deficient pavement. In addition, an amount equal to two times the contract cost of the deficient pavement will be deducted from the compensation due the Contractor.

The thickness of the first acceptable core on each side of the core more than ten percent deficient will be used to determine any needed pay adjustments for the remaining areas on each side of the area deficient by more than ten percent. The pay adjustment will be determined according to Article 407.10(b)(6).

(8) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. These additional cores shall be taken at specific locations determined by the

Engineer. The Engineer will provide notice to the Contractor containing an explanation of the reasons for his/her action.

When the additional cores show the pavement to be deficient by more than ten percent of plan thickness, the procedures outlined in Article 407.10(b)(7) shall be followed, except the Engineer will determine the additional core locations.

When the additional cores, ordered by the Engineer, show the pavement to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04.

(9) Profile Index Adjustment. After any area of pavement is removed and replaced or any additional lifts are added, the corrected areas shall be retested for pavement smoothness and any necessary profile index adjustments and/or corrections will be made based on these final profile readings prior to retesting for thickness."

Revise Article 482.06 of the Standard Specifications to read:

"**482.06 Tolerance in Thickness.** The shoulder shall be constructed to the thickness shown on the plans. When the contract includes square yards (square meters) as the unit of measurement for HMA shoulder, thickness determinations shall be made according to Article 407.10(b)(3) and the following.

(a) Length of the Units. The length of a unit shall be a continuous strip of shoulder 2500 ft (750 m) long.

(b) Width of the Units. The width of the unit shall be the full width of the shoulder.

(c) Thickness Deficient by More than Ten Percent. When a core shows the shoulder to be deficient by more than ten percent of plan thickness, additional cores shall be taken on each side of the deficient core, at stations selected by the Contractor and offsets selected by the Engineer, to determine the limits of the deficient shoulder. No core shall be located within 5 ft (1.5 m) of a previous core obtained for thickness determination. The first acceptable core obtained on each side of a deficient core will be used to determine the length of the deficient shoulder. An acceptable core is a core with a thickness of at least 90 percent of plan thickness. The area of deficient shoulder will be defined using the length between two acceptable cores and the full width of the unit. The area of deficient shoulder shall be brought to specified thickness by the addition of the applicable mixture, at no additional cost to the Department and subject to the lift thickness requirements of Article 312.05, or by removal and replacement with a new mixture. However, the surface elevation of the completed shoulder shall not exceed by more than 1/8 in. (3 mm) the surface elevation of the adjacent pavement. When requested in writing by the Contractor, the Engineer may permit in writing such thin shoulder to remain in place. When an area of thin shoulder is left in place, and no additional lift(s) are placed, no payment will be made for the thin shoulder. In addition,

an amount equal to two times the contract unit price of the shoulder will be deducted from the compensation due the Contractor.

When an area of deficient shoulder is removed and replaced, or additional lifts are placed, the corrected pavement shall be retested for thickness.

(d) Right of Discovery. When the Engineer has reason to believe any core location does not accurately represent the true conditions of the work, he/she may order additional cores. When the additional cores, ordered by the Engineer, show the shoulder to be at least 90 percent of plan thickness, the additional cores will be paid for according to Article 109.04. When the additional core shows the shoulder to be less than 90 percent of plan thickness, the procedure in (c), above shall be followed."

Revise Article 483.07 of the Standard Specifications to read:

"**483.07 Tolerance in Thickness.** The shoulder shall be constructed to the thickness shown on the plans. Thickness determinations shall be made according to Article 482.06 except the option of correcting deficient pavement with additional lift(s) shall not apply."

80227

DISADVANTAGED BUSINESS ENTERPRISE PARTICIPATION (BDE)

Effective: September 1, 2000
Revised: January 1, 2010

FEDERAL OBLIGATION. The Department of Transportation, as a recipient of federal financial assistance, is required to take all necessary and reasonable steps to ensure nondiscrimination in the award and administration of contracts. Consequently, the federal regulatory provisions of 49 CFR part 26 apply to this contract concerning the utilization of disadvantaged business enterprises. For the purposes of this Special Provision, a disadvantaged business enterprise (DBE) means a business certified by the Department in accordance with the requirements of 49 CFR part 26 and listed in the Illinois Unified Certification Program (IL UCP) DBE Directory.

STATE OBLIGATION. This Special Provision will also be used by the Department to satisfy the requirements of the Business Enterprise for Minorities, Females, and Persons with Disabilities Act, 30 ILCS 575. When this Special Provision is used to satisfy state law requirements on 100 percent state-funded contracts, the federal government has no involvement in such contracts (not a federal-aid contract) and no responsibility to oversee the implementation of this Special Provision by the Department on those contracts. DBE participation on 100 percent state-funded contracts will not be credited toward fulfilling the Department's annual overall DBE goal required by the US Department of Transportation to comply with the federal DBE program requirements.

CONTRACTOR ASSURANCE. The Contractor makes the following assurance and agrees to include the assurance in each subcontract that the Contractor signs with a subcontractor:

> The Contractor, subrecipient, or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of contracts funded in whole or in part with federal or state funds. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate.

OVERALL GOAL SET FOR THE DEPARTMENT. As a requirement of compliance with 49 CFR part 26, the Department has set an overall goal for DBE participation in its federally assisted contracts. That goal applies to all federal-aid funds the Department will expend in its federally assisted contracts for the subject reporting fiscal year. The Department is required to make a good faith effort to achieve the overall goal. The dollar amount paid to all approved DBE companies performing work called for in this contract is eligible to be credited toward fulfillment of the Department's overall goal.

CONTRACT GOAL TO BE ACHIEVED BY THE CONTRACTOR. This contract includes a specific DBE utilization goal established by the Department. The goal has been included because the Department has determined that the work of this contract has subcontracting opportunities that may be suitable for performance by DBE companies. This determination is based on an assessment of the type of work, the location of the work, and the availability of

DBE companies to do a part of the work. The assessment indicates that, in the absence of unlawful discrimination, and in an arena of fair and open competition, DBE companies can be expected to perform 11 % of the work. This percentage is set as the DBE participation goal for this contract. Consequently, in addition to the other award criteria established for this contract, the Department will only award this contract to a bidder who makes a good faith effort to meet this goal of DBE participation in the performance of the work. A bidder makes a good faith effort for award consideration if either of the following is done in accordance with the procedures set forth in this Special Provision:

(a) The bidder documents that enough DBE participation has been obtained to meet the goal; or

(b) The bidder documents that a good faith effort has been made to meet the goal, even though the effort did not succeed in obtaining enough DBE participation to meet the goal.

DBE LOCATOR REFERENCES. Bidders may consult the IL UCP DBE Directory as a reference source for DBE-certified companies. In addition, the Department maintains a lettings and item specific DBE locator information system whereby DBE companies can register their interest in providing quotes on particular bid items advertised for letting. Information concerning DBE companies willing to quote work for particular contracts may be obtained by contacting the Department's Bureau of Small Business Enterprises at telephone number (217)785-4611, or by visiting the Department's web site at www.dot.il.gov.

BIDDING PROCEDURES. Compliance with this Special Provision is a material bidding requirement. The failure of the bidder to comply will render the bid not responsive.

(a) The bidder shall submit a Disadvantaged Business Utilization Plan on Department forms SBE 2025 and 2026 with the bid.

(b) The Utilization Plan shall indicate that the bidder either has obtained sufficient DBE participation commitments to meet the contract goal or has not obtained enough DBE participation commitments in spite of a good faith effort to meet the goal. The Utilization Plan shall further provide the name, telephone number, and telefax number of a responsible official of the bidder designated for purposes of notification of plan approval or disapproval under the procedures of this Special Provision.

(c) The Utilization Plan shall include a DBE Participation Commitment Statement, Department form SBE 2025, for each DBE proposed for the performance of work to achieve the contract goal. For bidding purposes, submission of the completed SBE 2025 forms, signed by the DBEs and faxed to the bidder will be acceptable as long as the original is available and provided upon request. All elements of information indicated on the said form shall be provided, including but not limited to the following:

(1) The names and addresses of DBE firms that will participate in the contract;

(2) A description, including pay item numbers, of the work each DBE will perform;

(3) The dollar amount of the participation of each DBE firm participating. The dollar amount of participation for identified work shall specifically state the quantity, unit price, and total subcontract price for the work to be completed by the DBE. If partial pay items are to be performed by the DBE, indicate the portion of each item, a unit price where appropriate and the subcontract price amount;

(4) DBE Participation Commitment Statements, form SBE 2025, signed by the bidder and each participating DBE firm documenting the commitment to use the DBE subcontractors whose participation is submitted to meet the contract goal;

(5) If the bidder is a joint venture comprised of DBE companies and non-DBE companies, the plan must also include a clear identification of the portion of the work to be performed by the DBE partner(s); and,

(6) If the contract goal is not met, evidence of good faith efforts.

GOOD FAITH EFFORT PROCEDURES: The contract will not be awarded until the Utilization Plan submitted by the apparent successful bidder is approved. All information submitted by the bidder must be complete, accurate and adequately document the good faith efforts of the bidder before the Department will commit to the performance of the contract by the bidder. The Utilization Plan will be approved by the Department if the Utilization Plan commits sufficient commercially useful DBE work performance to meet the contract goal or the bidder submits sufficient documentation of a good faith effort to meet the contract goal pursuant to 49 CFR part 26, Appendix A. The Utilization Plan will not be approved by the Department if the Utilization Plan does not commit sufficient DBE participation to meet the contract goal unless the apparent successful bidder documented in the Utilization Plan that it made a good faith effort to meet the goal. This means that the bidder must show that all necessary and reasonable steps were taken to achieve the contract goal. Necessary and reasonable steps are those which, by their scope, intensity and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not successful. The Department will consider the quality, quantity, and intensity of the kinds of efforts that the bidder has made. Mere *pro forma* efforts, in other words, efforts done as a matter of form, are not good faith efforts; rather, the bidder is expected to have taken genuine efforts that would be reasonably expected of a bidder actively and aggressively trying to obtain DBE participation sufficient to meet the contract goal.

(a) The following is a list of types of action that the Department will consider as part of the evaluation of the bidder's good faith efforts to obtain participation. These listed factors are not intended to be a mandatory checklist and are not intended to be exhaustive. Other factors or efforts brought to the attention of the Department may be relevant in appropriate cases, and will be considered by the Department.

(1) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all certified DBE companies that have the capability to perform the work of the contract. The bidder

must solicit this interest within sufficient time to allow the DBE companies to respond to the solicitation. The bidder must determine with certainty if the DBE companies are interested by taking appropriate steps to follow up initial solicitations.

(2) Selecting portions of the work to be performed by DBE companies in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime Contractor might otherwise prefer to perform these work items with its own forces.

(3) Providing interested DBE companies with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.

(4) a. Negotiating in good faith with interested DBE companies. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBE companies that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE companies to perform the work.

b. A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE companies is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a bidder to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidders are not, however, required to accept higher quotes from DBE companies if the price difference is excessive or unreasonable.

(5) Not rejecting DBE companies as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.

(6) Making efforts to assist interested DBE companies in obtaining bonding, lines of credit, or insurance as required by the recipient or Contractor.

(7) Making efforts to assist interested DBE companies in obtaining necessary equipment, supplies, materials, or related assistance or services.

(8) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBE companies.

(b) If the Department determines that the apparent successful bidder has made a good faith effort to secure the work commitment of DBE companies to meet the contract goal, the Department will award the contract provided that it is otherwise eligible for award. If the Department determines that the bidder has failed to meet the requirements of this Special Provision and that a good faith effort has not been made, the Department will notify the responsible company official designated in the Utilization Plan that the bid is not responsive. The notification shall include a statement of reasons why good faith efforts have not been found.

(c) The bidder may request administrative reconsideration of a determination adverse to the bidder within the five working days after receipt of the notification date of the determination by delivering the request to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764 (Telefax: (217)785-1524). Deposit of the request in the United States mail on or before the fifth business day shall not be deemed delivery. The determination shall become final if a request is not made and delivered. A request may provide additional written documentation and/or argument concerning the issue of whether an adequate good faith effort was made to meet the contract goal. The request will be forwarded to the Department's Reconsideration Officer. The Reconsideration Officer will extend an opportunity to the bidder to meet in person in order to consider all issues of whether the bidder made a good faith effort to meet the goal. After the review by the Reconsideration Officer, the bidder will be sent a written decision within ten working days after receipt of the request for reconsideration, explaining the basis for finding that the bidder did or did not meet the goal or make adequate good faith efforts to do so. A final decision by the Reconsideration Officer that a good faith effort was made shall approve the Utilization Plan submitted by the bidder and shall clear the contract for award. A final decision that a good faith effort was not made shall render the bid not responsive.

CALCULATING DBE PARTICIPATION. The Utilization Plan values represent work anticipated to be performed and paid for upon satisfactory completion. The Department is only able to count toward the achievement of the overall goal and the contract goal the value of payments made for the work actually performed by DBE companies. In addition, a DBE must perform a commercially useful function on the contract to be counted. A commercially useful function is generally performed when the DBE is responsible for the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. The Department and Contractor are governed by the provisions of 49 CFR part 26.55(c) on questions of commercially useful functions as it affects the work. Specific counting guidelines are provided in 49 CFR part 26.55, the provisions of which govern over the summary contained herein.

(a) DBE as the Contractor: 100 percent goal credit for that portion of the work performed by the DBE's own forces, including the cost of materials and supplies. Work that a DBE subcontracts to a non-DBE does not count toward the DBE goals.

(b) DBE as a joint venture Contractor: 100 percent goal credit for that portion of the total dollar value of the contract equal to the distinct, clearly defined portion of the work performed by the DBE's own forces.

(c) DBE as a subcontractor: 100 percent goal credit for the work of the subcontract performed by the DBE's own forces, including the cost of materials and supplies, excluding the purchase of materials and supplies or the lease of equipment by the DBE subcontractor from the prime Contractor or its affiliates. Work that a DBE subcontractor in turn subcontracts to a non-DBE does not count toward the DBE goal.

(d) DBE as a trucker: 100 percent goal credit for trucking participation provided the DBE is responsible for the management and supervision of the entire trucking operation for which it is responsible. At least one truck owned, operated, licensed, and insured by the DBE must be used on the contact. Credit will be given for the following:

(1) The DBE may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.

(2) The DBE may also lease trucks from a non-DBE firm, including from an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit only for the fee or commission it receives as a result of the lease arrangement.

(e) DBE as a material supplier:

(1) 60 percent goal credit for the cost of the materials or supplies purchased from a DBE regular dealer.

(2) 100 percent goal credit for the cost of materials or supplies obtained from a DBE manufacturer.

(3) 100 percent credit for the value of reasonable fees and commissions for the procurement of materials and supplies if not a regular dealer or manufacturer.

CONTRACT COMPLIANCE. Compliance with this Special Provision is an essential part of the contract. The Department is prohibited by federal regulations from crediting the participation of a DBE included in the Utilization Plan toward either the contract goal or the Department's overall goal until the amount to be applied toward the goals has been paid to the DBE. The following administrative procedures and remedies govern the compliance by the Contractor with the contractual obligations established by the Utilization Plan. After approval of the Utilization Plan and award of the contract, the Utilization Plan and individual DBE Participation Statements

become part of the contract. If the Contractor did not succeed in obtaining enough DBE participation to achieve the advertised contract goal, and the Utilization Plan was approved and contract awarded based upon a determination of good faith, the total dollar value of DBE work calculated in the approved Utilization Plan as a percentage of the awarded contract value shall become the amended contract goal.

(a) No amendment to the Utilization Plan may be made without prior written approval from the Department's Bureau of Small Business Enterprises. All requests for amendment to the Utilization Plan shall be submitted to the Department of Transportation, Bureau of Small Business Enterprises, Contract Compliance Section, 2300 South Dirksen Parkway, Room 319, Springfield, Illinois 62764. Telephone number (217) 785-4611. Telefax number (217) 785-1524.

(b) The Contractor must notify and obtain written approval from the Department's Bureau of Small Business Enterprises prior to replacing a DBE or making any change in the participation of a DBE. Approval for replacement will be granted only if it is demonstrated that the DBE is unable or unwilling to perform. The Contractor must make every good faith effort to find another certified DBE subcontractor to substitute for the original DBE. The good faith efforts shall be directed at finding another DBE to perform at least the same amount of work under the contract as the original DBE, to the extent needed to meet the contract goal.

(c) Any deviation from the DBE condition-of-award or contract specifications must be approved, in writing, by the Department. The Contractor shall notify affected DBEs in writing of any changes in the scope of work which result in a reduction in the dollar amount condition-of-award to the contract.

(d) In addition to the above requirements for reductions in the condition of award, additional requirements apply to the two cases of Contractor-initiated work substitution proposals. Where the contract allows alternate work methods which serve to delete or create underruns in condition of award DBE work, and the Contractor selects that alternate method or, where the Contractor proposes a substitute work method or material that serves to diminish or delete work committed to a DBE and replace it with other work, then the Contractor must demonstrate one of the following:

(1) That the replacement work will be performed by the same DBE (as long as the DBE is certified in the respective item of work) in a modification of the condition of award; or

(2) That the DBE is aware that its work will be deleted or will experience underruns and has agreed in writing to the change. If this occurs, the Contractor shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so; or

(3) That the DBE is not capable of performing the replacement work or has declined to perform the work at a reasonably competitive price. If this occurs, the Contractor

shall substitute other work of equivalent value to a certified DBE or provide documentation of good faith efforts to do so.

(e) Where the revision includes work committed to a new DBE subcontractor, not previously involved in the project, then a Request for Approval of Subcontractor, Department form BC 260A, must be signed and submitted.

(f) If the commitment of work is in the form of additional tasks assigned to an existing subcontract, than a new Request for Approval of Subcontractor shall not be required. However, the Contractor must document efforts to assure that the existing DBE subcontractor is capable of performing the additional work and has agreed in writing to the change.

(g) All work indicated for performance by an approved DBE shall be performed, managed, and supervised by the DBE executing the Participation Statement. The Contractor shall not terminate for convenience a DBE listed in the Utilization Plan and then perform the work of the terminated DBE with its own forces, those of an affiliate or those of another subcontractor, whether DBE or not, without first obtaining the written consent of the Bureau of Small Business Enterprises to amend the Utilization Plan. The Contractor shall notify the Bureau of Small Business Enterprises of any termination for reasons other than convenience, and shall obtain approval for inclusion of the substitute DBE in the Utilization Plan. If good faith efforts following a termination of a DBE for cause are not successful, the Contractor shall contact the Bureau of Small Business Enterprises and provide a full accounting of the efforts undertaken to obtain substitute DBE participation. The Bureau of Small Business Enterprises will evaluate the good faith efforts in light of all circumstances surrounding the performance status of the contract, and determine whether the contract goal should be amended.

(h) The Contractor shall maintain a record of payments for work performed to the DBE participants. The records shall be made available to the Department for inspection upon request. After the performance of the final item of work or delivery of material by a DBE and final payment therefore to the DBE by the Contractor, but not later than thirty calendar days after payment has been made by the Department to the Contractor for such work or material, the Contractor shall submit a DBE Payment Agreement on Department form SBE 2115 to the Regional Engineer. If full and final payment has not been made to the DBE, the DBE Payment Agreement shall indicate whether a disagreement as to the payment required exists between the Contractor and the DBE or if the Contractor believes that the work has not been satisfactorily completed. If the Contractor does not have the full amount of work indicated in the Utilization Plan performed by the DBE companies indicated in the Utilization Plan and after good faith efforts are reviewed, the Department may deduct from contract payments to the Contractor the amount of the goal not achieved as liquidated and ascertained damages. The Contractor may request an administrative reconsideration of any amount deducted as damages pursuant to subsection (j) of this part.

(i) The Department reserves the right to withhold payment to the Contractor to enforce the provisions of this Special Provision. Final payment shall not be made on the contract

until such time as the Contractor submits sufficient documentation demonstrating achievement of the goal in accordance with this Special Provision or after liquidated damages have been determined and collected.

(j) Notwithstanding any other provision of the contract, including but not limited to Article 109.09 of the Standard Specifications, the Contractor may request administrative reconsideration of a decision to deduct the amount of the goal not achieved as liquidated damages. A request to reconsider shall be delivered to the Contract Compliance Section and shall be handled and considered in the same manner as set forth in paragraph (c) of "Good Faith Effort Procedures" of this Special Provision, except a final decision that a good faith effort was not made during contract performance to achieve the goal agreed to in the Utilization Plan shall be the final administrative decision of the Department.

80029

DOWEL BARS (BDE)

Effective: April 1, 2007
Revised: January 1, 2008

Revise the fifth and sixth sentences of Article 1006.11(b) of the Standard Specifications to read:

"The bars shall be epoxy coated according to AASHTO M 284, except the thickness of the epoxy shall be 7 to 12 mils (0.18 to 0.30 mm) and patching of the ends will not be required. The epoxy coating applicator shall be certified according to the current Bureau of Materials and Physical Research Policy Memorandum, "Epoxy Coating Plant Certification Procedure". The Department will maintain an approved list."

80178

EQUIPMENT RENTAL RATES (BDE)

Effective: August 2, 2007
Revised: January 2, 2008

Replace the second and third paragraphs of Article 105.07(b)(4)a. of the Standard Specifications with the following:

"Equipment idled which cannot be used on other work, and which is authorized to standby on the project site by the Engineer, will be paid for according to Article 109.04(b)(4)."

Replace Article 109.04(b)(4) of the Standard Specifications with the following:

"(4) Equipment. Equipment used for extra work shall be authorized by the Engineer. The equipment shall be specifically described, be of suitable size and capacity for the work to be performed, and be in good operating condition. For such equipment, the Contractor will be paid as follows.

a. Contractor Owned Equipment. Contractor owned equipment will be paid for by the hour using the applicable FHWA hourly rate from the "Equipment Watch Rental Rate Blue Book" (Blue Book) in effect when the force account work begins. The FHWA hourly rate is calculated as follows.

FHWA hourly rate = (monthly rate/176) x (model year adj.) x (Illinois adj.) + EOC

Where: EOC = Estimated Operating Costs per hour (from the Blue Book)

The time allowed will be the actual time the equipment is operating on the extra work. For the time required to move the equipment to and from the site of the extra work and any authorized idle (standby) time, payment will be made at the following hourly rate: 0.5 x (FHWA hourly rate - EOC).

All time allowed shall fall within the working hours authorized for the extra work.

The rates above include the cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs, overhaul and maintenance of any kind, depreciation, storage, overhead, profits, insurance, and all incidentals. The rates do not include labor.

The Contractor shall submit to the Engineer sufficient information for each piece of equipment and its attachments to enable the Engineer to determine the proper equipment category. If a rate is not established in the Blue Book for a particular piece of equipment, the Engineer will establish a rate for that piece of equipment that is consistent with its cost and use in the industry.

b. Rented Equipment. Whenever it is necessary for the Contractor to rent equipment to perform extra work, the rental and transportation costs of the equipment plus five percent for overhead will be paid. In no case shall the rental rates exceed those of established distributors or equipment rental agencies.

All prices shall be agreed to in writing before the equipment is used."

80189

FILTER FABRIC (BDE)

Effective: November 1, 2009
Revised: January 1, 2010

Revise the physical property tables in Article 1080.03 of the Standard Specifications to read:

"Physical Properties	Gradation 4 & 5	Gradation 6 & 7
Weight of Fabric (oz/sq yd), ASTM D 3776 (Mod.)	6.0 min.	8.0 min.
Burst Strength (psi), ASTM D 3786 1/	250 min.	300 min.
Trapezoidal Tear Strength (lb), ASTM D 5733 2/	60 min.	75 min.
Grab Tensile Strength (lb), ASTM D 4632 2/	160 min.	200 min.
Grab Tensile Elongation (%), ASTM D 4632 2/	50 max.	50 max.

Physical Properties (Metric)	Gradation 4 & 5	Gradation 6 & 7
Weight of Fabric (g/sq m), ASTM D 3776 (Mod.)	200 min.	270 min.
Burst Strength (kPa), ASTM D 3786 1/	1720 min.	2070 min.
Trapezoidal Tear Strength (N), ASTM D 5733 2/	265 min.	335 min.
Grab Tensile Strength (N), ASTM D 4632 2/	700 min.	900 min.
Grab Tensile Elongation (%), ASTM D 4632 2/	50 max.	50 max.

1/ Manufacturer's certification of fabric to meet requirements.
2/ Test sample shall be tested wet."

80244

HMA - HAULING ON PARTIALLY COMPLETED FULL-DEPTH PAVEMENT (BDE)

Effective: January 1, 2008

Revise Article 407.08 of the Standard Specifications to read:

"**407.08 Hauling on the Partially Completed Full-Depth Pavement.** Legally loaded trucks will be permitted on the partially completed full-depth HMA pavement only to deliver HMA mixture to the paver, provided the last lift has cooled a minimum of 12 hours. Hauling shall be limited to the distances shown in the following tables. The pavement surface temperature shall be measured using an infrared gun. The use of water to cool the pavement to permit hauling will not be allowed. The Contractor's traffic pattern shall minimize hauling on the partially completed pavement and shall vary across the width of the pavement such that "tracking" of vehicles, one directly behind the other, does not occur.

MAXIMUM HAULING DISTANCE FOR PAVEMENT SURFACE TEMPERATURE BELOW 105 °F (40 °C)				
Total In-Place Thickness Being Hauled On, in. (mm)	Thickness of Lift Being Placed			
	3 in. (75 mm) or less		More than 3 in. (75 mm)	
	Modified Soil Subgrade	Granular Subbase	Modified Soil Subgrade	Granular Subbase
3.0 to 4.0 (75 to 100)	0.75 miles (1200 m)	1.0 mile (1600 m)	0.50 miles (800 m)	0.75 miles (1200 m)
4.1 to 5.0 (101 to 125)	1.0 mile (1600 m)	1.5 miles (2400 m)	0.75 miles (1200 m)	1.0 mile (1600 m)
5.1 to 6.0 (126 to 150)	2.0 miles (3200 m)	2.5 miles (4000 m)	1.5 miles (2400 m)	2.0 miles (3200 m)
6.1 to 8.0 (151 to 200)	2.5 miles (4000 m)	3.0 miles (4800 m)	2.0 miles (3200 m)	2.5 miles (4000 m)
Over 8.0 (200)	No Restrictions			

MAXIMUM HAULING DISTANCE FOR PAVEMENT SURFACE TEMPERATURE OF 105 °F (40 °C) AND ABOVE				
Total In-Place Thickness Being Hauled On, in. (mm)	Thickness of Lift Being Placed			
	3 in. (75 mm) or less		More than 3 in. (75 mm)	
	Modified Soil Subgrade	Granular Subbase	Modified Soil Subgrade	Granular Subbase
3.0 to 4.0 (75 to 100)	0.50 miles (800 m)	0.75 miles (1200 m)	0.25 miles (400 m)	0.50 miles (800 m)
4.1 to 5.0 (101 to 125)	0.75 miles (1200 m)	1.0 mile (1600 m)	0.50 miles (800 m)	0.75 miles (1200 m)
5.1 to 6.0 (126 to 150)	1.0 mile (1600 m)	1.5 miles (2400 m)	0.75 miles (1200 m)	1.0 mile (1600 m)
6.1 to 8.0 (151 to 200)	2.0 miles (3200 m)	2.5 miles (4000 m)	1.5 miles (2400 m)	2.0 miles (3200 m)
Over 8.0 (200)	No Restrictions			

Permissive hauling on the partially completed pavement shall not relieve the Contractor of his/her responsibility for damage to the pavement. Any portion of the full-depth HMA pavement that is damaged by hauling shall be removed and replaced, or otherwise repaired to the satisfaction of the Engineer.

Crossovers used to transfer haul trucks from one roadway to the other shall be at least 1000 ft (300 m) apart and shall be constructed of material that will prevent tracking of dust or mud on the completed HMA lifts. The Contractor shall construct, maintain, and remove all crossovers."

80194

HOT-MIX ASPHALT – ANTI-STRIPPING ADDITIVE (BDE)

Effective: November 1, 2009

Revise the first and second paragraphs of Article 1030.04(c) of the Standard Specifications to read:

"(c) Determination of Need for Anti-Stripping Additive. The mixture designer shall determine if an additive is needed in the mix to prevent stripping. The determination will be made on the basis of tests performed according to Illinois Modified AASHTO T 283. To be considered acceptable by the Department as a mixture not susceptible to stripping, the conditioned to unconditioned split tensile strength ratio (TSR) shall be equal to or greater than 0.85 for 6 in. (150 mm) specimens. Mixtures, either with or without an additive, with TSRs less than 0.85 for 6 in. (150 mm) specimens will be considered unacceptable. Also, the conditioned tensile strength for mixtures containing an anti-strip additive shall not be lower than the original conditioned tensile strength determined for the same mixture without the anti-strip additive.

If it is determined that an additive is required, the additive may be hydrated lime, slaked quicklime, or a liquid additive, at the Contractor's option."

80245

HOT-MIX ASPHALT - DENSITY TESTING OF LONGITUDINAL JOINTS (BDE)

Effective: January 1, 2010

Description. This work shall consist of testing the density of longitudinal joints as part of the quality control/quality assurance (QC/QA) of hot-mix asphalt (HMA). Work shall be according to Section 1030 of the Standard Specifications except as follows.

Quality Control/Quality Assurance (QC/QA). Delete the second and third sentence of the third paragraph of Article 1030.05(d)(3) of the Standard Specifications.

Add the following paragraphs to the end of Article 1030.05(d)(3) of the Standard Specifications:

"Longitudinal joint density testing shall be performed at each random density test location. Longitudinal joint testing shall be located at a distance equal to the lift thickness or a minimum of 2 in. (50 mm), from each pavement edge. (i.e. for a 4 in. (100 mm) lift the near edge of the density gauge or core barrel shall be within 4 in. (100 mm) from the edge of pavement.) Longitudinal joint density testing shall be performed using either a correlated nuclear gauge or cores.

a. Confined Edge. Each confined edge density shall be represented by a one-minute nuclear density reading or a core density and shall be included in the average of density readings or core densities taken across the mat which represents the Individual Test.

b. Unconfined Edge. Each unconfined edge joint density shall be represented by an average of three one-minute density readings or a single core density at the given density test location and shall meet the density requirements specified herein. The three one-minute readings shall be spaced ten feet apart longitudinally along the unconfined pavement edge and centered at the random density test location."

Revise the Density Control Limits table in Article 1030.05(d)(4) of the Standard Specifications to read:

"Mixture Composition	Parameter	Individual Test (includes confined edges)	Unconfined Edge Joint Density Minimum
IL-9.5, IL-12.5	Ndesign ≥90	92.0 – 96.0%	90.0%
IL-9.5,IL-9.5L, IL-12.5	Ndesign < 90	92.5 – 97.4%	90.0%
IL-19.0, IL-25.0	Ndesign ≥90	93.0 – 96.0%	90.0%
IL-19.0, IL-19.0L, IL-25.0	Ndesign < 90	93.0 – 97.4%	90.0%
SMA	Ndesign = 50 & 80	93.5 – 97.4%	91.0%
All Other	Ndesign = 30	93.0 - 97.4%	90.0%"

80246

HOT-MIX ASPHALT – DROP-OFFS (BDE)

Effective: January 1, 2010

Revise the third paragraph of Article 701.07 of the Standard Specifications to read:

"At locations where construction operations result in a differential in elevation exceeding 3 in. (75 mm) between the edge of pavement or edge of shoulder within 3 ft (900 mm) of the edge of the pavement and the earth or aggregate shoulders, Type I or II barricades or vertical panels shall be placed at 100 ft (30 m) centers on roadways where the posted speed limit is 45 mph or greater and at 50 ft (15 m) centers on roadways where the posted speed limit is less than 45 mph."

80250

HOT-MIX ASPHALT – PLANT TEST FREQUENCY (BDE)

Effective: April 1, 2008
Revised: January 1, 2010

Revise the table in Article 1030.05(d)(2)a. of the Standard Specifications to read:

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
Aggregate Gradation % passing sieves: 1/2 in. (12.5 mm), No. 4 (4.75 mm), No. 8 (2.36 mm), No. 30 (600 µm) No. 200 (75 µm) Note 1.	1 washed ignition oven test on the mix per half day of production Note 4.	1 washed ignition oven test on the mix per day of production Note 4.	Illinois Procedure
Asphalt Binder Content by Ignition Oven Note 2.	1 per half day of production	1 per day	Illinois-Modified AASHTO T 308
VMA Note 3.	Day's production ≥ 1200 tons: 1 per half day of production	N/A	Illinois Modified AASHTO R 35
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Air Voids Bulk Specific Gravity of Gyratory Sample	Day's production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 312

"Parameter	Frequency of Tests High ESAL Mixture Low ESAL Mixture	Frequency of Tests All Other Mixtures	Test Method See Manual of Test Procedures for Materials
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		
Maximum Specific Gravity of Mixture	Day's production ≥ 1200 tons: 1 per half day of production	1 per day	Illinois-Modified AASHTO T 209
	Day's production < 1200 tons: 1 per half day of production for first 2 days and 1 per day thereafter (first sample of the day)		

Note 1. The No. 8 (2.36 mm) and No. 30 (600 μm) sieves are not required for All Other Mixtures.

Note 2. The Engineer may waive the ignition oven requirement for asphalt binder content if the aggregates to be used are known to have ignition asphalt binder content calibration factors which exceed 1.5 percent. If the ignition oven requirement is waived, other Department approved methods shall be used to determine the asphalt binder content.

Note 3. The G_{sb} used in the voids in the mineral aggregate (VMA) calculation shall be the same average G_{sb} value listed in the mix design.

Note 4. The Engineer reserves the right to require additional hot bin gradations for batch plants if control problems are evident."

80201

HOT-MIX ASPHALT – QC/QA ACCEPTANCE CRITERIA (BDE)

Effective: January 1, 2010

Revise Article 1030.05(f)(3) of the Standard Specifications to read:

"(3) Department assurance tests for voids, field VMA, and density."

80251

HOT-MIX ASPHALT – TRANSPORTATION (BDE)

Effective: April 1, 2008

Revise Article 1030.08 of the Standard Specifications to read:

"**1030.08 Transportation.** Vehicles used in transporting HMA shall have clean and tight beds. The beds shall be sprayed with asphalt release agents from the Department's approved list. In lieu of a release agent, the Contractor may use a light spray of water with a light scatter of manufactured sand (FA 20 or FA 21) evenly distributed over the bed of the vehicle. After spraying, the bed of the vehicle shall be in a completely raised position and it shall remain in this position until all excess asphalt release agent or water has been drained.

When the air temperature is below 60 °F (15 °C), the bed, including the end, endgate, sides and bottom shall be insulated with fiberboard, plywood or other approved insulating material and shall have a thickness of not less than 3/4 in (20 mm). When the insulation is placed inside the bed, the insulation shall be covered with sheet steel approved by the Engineer. Each vehicle shall be equipped with a cover of canvas or other suitable material meeting the approval of the Engineer which shall be used if any one of the following conditions is present.

(a) Ambient air temperature is below 60 °F (15 °C).

(b) The weather is inclement.

(c) The temperature of the HMA immediately behind the paver screed is below 250 °F (120 °C).

The cover shall extend down over the sides and ends of the bed for a distance of approximately 12 in. (300 mm) and shall be fastened securely. The covering shall be rolled back before the load is dumped into the finishing machine."

80202

LIQUIDATED DAMAGES (BDE)

Effective: April 1, 2009

Revise the table in Article 108.09 of the Standard Specifications to read:

"Schedule of Deductions for Each Day of Overrun in Contract Time			
Original Contract Amount		Daily Charges	
From More Than	To and Including	Calendar Day	Work Day
$ 0	$ 100,000	$ 375	$ 500
100,000	500,000	625	875
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,125	1,550
3,000,000	5,000,000	1,425	1,950
5,000,000	10,000,000	1,700	2,350
10,000,000	And over	3,325	4,650"

80230

METAL HARDWARE CAST INTO CONCRETE (BDE)

Effective: April 1, 2008
Revised: April 1, 2009

Add the following to Article 503.02 of the Standard Specifications:

"(g) Metal Hardware Cast into Concrete.....1006.13"

Add the following to Article 504.02 of the Standard Specifications:

"(j) Metal Hardware Cast into Concrete.....1006.13"

Revise Article 1006.13 of the Standard Specifications to read:

"**1006.13 Metal Hardware Cast into Concrete.** Unless otherwise noted, all steel hardware cast into concrete, such as inserts, brackets, cable clamps, metal casings for formed holes, and other miscellaneous items, shall be galvanized according to AASHTO M 232 or AASHTO M 111. Aluminum inserts will not be allowed. Zinc alloy inserts shall be according to ASTM B 86, Alloys 3, 5, or 7.

The inserts shall be UNC threaded type anchorages having the following minimum certified proof load.

Insert Diameter	Proof Load
5/8 in. (16 mm)	6600 lb (29.4 kN)
3/4 in. (19 mm)	6600 lb (29.4 kN)
1 in. (25 mm)	9240 lb (41.1 kN)"

80203

MULTILANE PAVEMENT PATCHING (BDE)

Effective: November 1, 2002

Pavement broken and holes opened for patching shall be completed prior to weekend or holiday periods. Should delays of any type or for any reason prevent the completion of the work, temporary patches shall be constructed. Material able to support the average daily traffic and meeting the approval of the Engineer shall be used for the temporary patches. The cost of furnishing, placing, maintaining, removing and disposing of the temporary work, including traffic control, shall be the responsibility of the Contractor.

80082

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM / EROSION AND SEDIMENT CONTROL DEFICIENCY DEDUCTION (BDE)

Effective: April 1, 2007
Revised: November 1, 2009

Revise Article 105.03(a) of the Standard Specifications to read:

"(a) National Pollutant Discharge Elimination System (NPDES) / Erosion and Sediment Control Deficiency Deduction. When the Engineer is notified or determines an erosion and/or sediment control deficiency(s) exists, or the Contractor's activities represents a violation of the Department's NPDES permits, the Engineer will notify and direct the Contractor to correct the deficiency within a specified time. The specified time, which begins upon notification to the Contractor, will be from 1/2 hour to 1 week based on the urgency of the situation and the nature of the work effort required. The Engineer will be the sole judge.

A deficiency may be any lack of repair, maintenance, or implementation of erosion and/or sediment control devices included in the contract, or any failure to comply with the conditions of the Department's NPDES permits. A deficiency may also be applied to situations where corrective action is not an option such as the failure to participate in a jobsite inspection of the project, failure to install required measures prior to initiating earth moving operations, disregard of concrete washout requirements, or other disregard of the NPDES permit.

If the Contractor fails to correct a deficiency within the specified time, a daily monetary deduction will be imposed for each calendar day or portion of a calendar day until the deficiency is corrected to the satisfaction of the Engineer. The calendar day(s) will begin with notification to the Contractor and end with the Engineer's acceptance of the correction. The base value of the daily monetary deduction is $1000.00 and will be applied to each location for which a deficiency exists. The value of the deficiency deduction assessed for each infraction will be determined by multiplying the base value by a Gravity Adjustment Factor provided in Table A. Except for failure to participate in a required jobsite inspection of the project prior to initiating earthmoving operations which will be based on the total acreage of planned disturbance at the following multipliers: <5 Acres: 1; 5-10 Acres: 2; >10-25 Acres: 3; >25 Acres: 5. For those deficiencies where corrective action was not an option, the monetary deduction will be immediate and will be valued at one calendar day multiplied by a Gravity Adjustment Factor.

Table A Deficiency Deduction Gravity Adjustment Factors				
Types of Violations	Soil Disturbed and Not Permanently Stabilized At Time of Violation			
	< 5 Acres	5 - 10 Acres	>10 - 25 Acres	> 25 Acres
Failure to Install or Properly Maintain BMP	0.1 - 0.5	0.2 - 1.0	0.5 - 2.5	1.0 - 5
Careless Destruction of BMP	0.2 - 1	0.5 - 2.5	1.0 - 5.	1.0 - 5
Intrusion into Protected Resource	1.0 - 5	1.0 - 5	2.0 - 10	2.0 - 10
Failure to properly manage Chemicals, Concrete Washouts or Residuals, Litter or other Wastes	0.2 - 1	0.2 - 1	0.5 - 2.5	1.0 - 5
Improper Vehicle and Equipment Maintenance, Fueling or Cleaning	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5
Failure to Provide or Update Written or Graphic Plans Required by SWPPP	0.2 - 1	0.5 - 2.5	1.0 - 5	1.0 - 5
Failure to comply with Other Provisions of the NPDES Permit	0.1 - 0.5	0.2 - 1	0.2 - 1	0.5 - 2.5"

80180

PAVEMENT PATCHING (BDE)

Effective: January 1, 2010

Revise the first sentence of the second paragraph of Article 701.17(e)(1) of the Standard Specifications to read:

"In addition to the traffic control and protection shown elsewhere in the contract for pavement, two devices shall be placed immediately in front of each open patch, open hole, and broken pavement where temporary concrete barriers are not used to separate traffic from the work area."

80254

PAYMENTS TO SUBCONTRACTORS (BDE)

Effective: June 1, 2000
Revised: January 1, 2006

Federal regulations found at 49 CFR §26.29 mandate the Department to establish a contract clause to require Contractors to pay subcontractors for satisfactory performance of their subcontracts and to set the time for such payments.

State law also addresses the timing of payments to be made to subcontractors and material suppliers. Section 7 of the Prompt Payment Act, 30 ILCS 540/7, requires that when a Contractor receives any payment from the Department, the Contractor shall make corresponding, proportional payments to each subcontractor and material supplier performing work or supplying material within 15 calendar days after receipt of the Department payment. Section 7 of the Act further provides that interest in the amount of two percent per month, in addition to the payment due, shall be paid to any subcontractor or material supplier by the Contractor if the payment required by the Act is withheld or delayed without reasonable cause. The Act also provides that the time for payment required and the calculation of any interest due applies to transactions between subcontractors and lower-tier subcontractors and material suppliers throughout the contracting chain.

This Special Provision establishes the required federal contract clause, and adopts the 15 calendar day requirement of the State Prompt Payment Act for purposes of compliance with the federal regulation regarding payments to subcontractors. This contract is subject to the following payment obligations.

When progress payments are made to the Contractor according to Article 109.07 of the Standard Specifications, the Contractor shall make a corresponding payment to each subcontractor and material supplier in proportion to the work satisfactorily completed by each subcontractor and for the material supplied to perform any work of the contract. The proportionate amount of partial payment due to each subcontractor and material supplier throughout the contracting chain shall be determined by the quantities measured or otherwise determined as eligible for payment by the Department and included in the progress payment to the Contractor. Subcontractors and material suppliers shall be paid by the Contractor within 15 calendar days after the receipt of payment from the Department. The Contractor shall not hold retainage from the subcontractors. These obligations shall also apply to any payments made by subcontractors and material suppliers to their subcontractors and material suppliers; and to all payments made to lower tier subcontractors and material suppliers throughout the contracting chain. Any payment or portion of a payment subject to this provision may only be withheld from the subcontractor or material supplier to whom it is due for reasonable cause.

This Special Provision does not create any rights in favor of any subcontractor or material supplier against the State or authorize any cause of action against the State on account of any payment, nonpayment, delayed payment, or interest claimed by application of the State Prompt Payment Act. The Department will not approve any delay or postponement of the 15 day requirement except for reasonable cause shown after notice and hearing pursuant to Section

7(b) of the State Prompt Payment Act. State law creates other and additional remedies available to any subcontractor or material supplier, regardless of tier, who has not been paid for work properly performed or material furnished. These remedies are a lien against public funds set forth in Section 23(c) of the Mechanics Lien Act, 770 ILCS 60/23(c), and a recovery on the Contractor's payment bond according to the Public Construction Bond Act, 30 ILCS 550.

80022

PERSONAL PROTECTIVE EQUIPMENT (BDE)

Effective: November 1, 2008

Revise the first sentence of Article 701.12 of the Standard Specifications to read:

"All personnel on foot, excluding flaggers, within the highway right-of-way shall wear a fluorescent orange, fluorescent yellow/green, or a combination of fluorescent orange and fluorescent yellow/green vest meeting the requirements of ANSI/ISEA 107-2004 for Conspicuity Class 2 garments."

80209

PORTLAND CEMENT CONCRETE PLANTS (BDE)

Effective: January 1, 2007

Add the following to Article 1020.11(a) of the Standard Specifications.

"(9) Use of Multiple Plants in the Same Construction Item. The Contractor may simultaneously use central-mixed, truck-mixed, and shrink-mixed concrete from more than one plant, for the same construction item, on the same day, and in the same pour. However, the following criteria shall be met.

a. Each plant shall use the same cement, finely divided minerals, aggregates, admixtures, and fibers.

b. Each plant shall use the same mix design. However, material proportions may be altered slightly in the field to meet slump and air content criteria. Field water adjustments shall not result in a difference that exceeds 0.02 between plants for water/cement ratio. The required cement factor for central-mixed concrete shall be increased to match truck-mixed or shrink-mixed concrete, if the latter two types of mixed concrete are used in the same pour.

c. The maximum slump difference between deliveries of concrete shall be 3/4 in. (19 mm) when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the slump difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for slump by the Contractor. Thereafter, when a specified test frequency for slump is to be performed, it shall be conducted for each plant at the same time.

d. The maximum air content difference between deliveries of concrete shall be 1.5 percent when tested at the jobsite. If the difference is exceeded, but test results are within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and shall test subsequent deliveries of concrete until the air content difference is corrected. For each day, the first three truck loads of delivered concrete from each plant shall be tested for air content by the Contractor. Thereafter, when a specified test frequency for air content is to be performed, it shall be conducted for each plant at the same time.

e. Strength tests shall be performed and taken at the jobsite for each plant. When a specified strength test is to be performed, it shall be conducted for each plant at the same time. The difference between plants for their mean strength shall not exceed 450 psi (3100 kPa) compressive and 80 psi (550 kPa) flexural. The strength standard deviation for each plant shall not exceed 650 psi (4480 kPa) compressive and 110 psi (760 kPa) flexural. The mean and standard deviation requirements shall apply to the test of record. If the strength difference requirements are exceeded, the Contractor shall take corrective action.

f. The maximum haul time difference between deliveries of concrete shall be 15 minutes. If the difference is exceeded, but haul time is within specification limits, the concrete may be used. The Contractor shall take immediate corrective action and check subsequent deliveries of concrete until the haul time difference is corrected."

80170

PRECAST CONCRETE HANDLING HOLES (BDE)

Effective: January 1, 2007

Add the following to Article 540.02 of the Standard Specifications:

"(g) Handling Hole Plugs.....1042.16"

Add the following paragraph after the sixth paragraph of Article 540.06 of the Standard Specifications:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar, or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Article 542.02 of the Standard Specifications:

"(ee) Handling Hole Plugs .....1042.16"

Revise the fifth paragraph of Article 542.04(d) of the Standard Specifications to read:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 550.02 of the Standard Specifications:

"(o) Handling Hole Plugs.....1042.16"

Replace the fourth sentence of the fifth paragraph of Article 550.06 of the Standard Specifications with the following:

"Handling holes in concrete pipe shall be filled with a precast concrete plug and sealed with mastic or mortar; or filled with a polyethylene plug. The plug shall not project beyond the inside surface after installation."

Add the following to Article 602.02 of the Standard Specifications:

"(p) Handling Hole Plugs..... 1042.16(a)"

Replace the fifth sentence of the first paragraph of Article 602.07 of the Standard Specifications with the following:

"Handling holes shall be filled with a precast concrete plug and sealed with mastic or mortar. The plug shall not project beyond the inside surface after installation. When metal lifting inserts are used, their sockets shall be filled with mastic or mortar."

Add the following to Section 1042 of the Standard Specifications:

"**1042.16 Handling Hole Plugs.** Plugs for handling holes in precast concrete products shall be as follows.

(a) Precast Concrete Plug. The precast concrete plug shall have a tapered shape and shall have a minimum compressive strength of 3000 psi (20,700 kPa) at 28 days.

(b) Polyethylene Plug. The polyethylene plug shall have a "mushroom" shape with a flat round top and a stem with three different size ribs. The plug shall fit snuggly and cover the handling hole.

The plug shall be according to the following.

Mechanical Properties	Test Method	Value (min.)
Flexural Modulus	ASTM D 790	3300 psi (22,750 kPa)
Tensile Strength (Break)	ASTM D 638	1600 psi (11,030 kPa)
Tensile Strength (Yield)	ASTM D 638	1200 psi (8270 kPa)

Thermal Properties	Test Method	Value (min.)
Brittle Temperature	ASTM D 746	-49 °F (-45 °C)
Vicat Softening Point	ASTM D 1525	194 °F (90 °C)"

80171

RAISED REFLECTIVE PAVEMENT MARKERS (BDE)

Effective: November 1, 2009
Revised: April 1, 2010

Revise the first sentence of the second paragraph of Article 781.03(a) of the Standard Specifications to read:

"The pavement shall be cut to match the bottom contour of the marker using a concrete saw fitted with 18 and 20 in. (450 and 500 mm) diameter blades."

80247

REFLECTIVE SHEETING ON CHANNELIZING DEVICES (BDE)

Effective: April 1, 2007
Revised: November 1, 2008

Revise the seventh paragraph of Article 1106.02 of the Standard Specifications to read:

"At the time of manufacturing, the retroreflective prismatic sheeting used on channelizing devices shall meet or exceed the initial minimum coefficient of retroreflection as specified in the following table. Measurements shall be conducted according to ASTM E 810, without averaging. Sheeting used on cones, drums and flexible delineators shall be reboundable as tested according to ASTM D 4956. Prestriped sheeting for rigid substrates on barricades shall be white and orange. The sheeting shall be uniform in color and devoid of streaks throughout the length of each roll. The color shall conform to the latest appropriate standard color tolerance chart issued by the U.S. Department of Transportation, Federal Highway Administration, and to the daytime and nighttime color requirements of ASTM D 4956.

Initial Minimum Coefficient of Retroreflection candelas/foot candle/sq ft (candelas/lux/sq m) of material				
Observation Angle (deg.)	Entrance Angle (deg.)	White	Orange	Fluorescent Orange
0.2	-4	365	160	150
0.2	+30	175	80	70
0.5	-4	245	100	95
0.5	+30	100	50	40"

Revise the first sentence of the first paragraph of Article 1106.02(c) of the Standard Specifications to read:

"Barricades and vertical panels shall have alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

Revise the third sentence of the first paragraph of Article 1106.02(d) of the Standard Specifications to read:

"The bottom panels shall be 8 x 24 in. (200 x 600 mm) with alternating white and orange stripes sloping downward at 45 degrees toward the side on which traffic will pass."

80183

SELF-CONSOLIDATING CONCRETE FOR CAST-IN-PLACE CONSTRUCTION (BDE)

Effective: November 1, 2005
Revised: January 1, 2009

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for cast-in-place concrete construction items involving Class MS, DS, and SI concrete.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. Article 1020.04 of the Standard Specifications shall apply, except as follows:

(a) The cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m). The cement factor shall not be reduced if a water-reducing, retarding, or high range water-reducing admixture is used.

(b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.

(c) The slump requirements shall not apply.

(d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.

(e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.

(f) The visual stability index shall be a maximum of 1.

(g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.

(h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.

(i) The column segregation index shall be a maximum 15 percent.

(j) The hardened visual stability index shall be a maximum of 1.

Test Methods. Illinois Test Procedures SCC-1, SCC-2, SCC-3, SCC-4, SCC-5, SCC-6, and Illinois Modified AASHTO T 22, 23, 121, 126, 141, 152, 177, 196, and 309 shall be used for testing of self-consolidating concrete mixtures.

Mix Design Submittal. The Contractor's Level III PCC Technician shall submit a mix design according to the "Portland Cement Concrete Level III Technician" course manual, except target slump information is not applicable and will not be required. However, a slump flow target range shall be submitted. In addition, the design mortar factor may exceed 1.10 and durability test data will be waived.

A J-ring value shall be submitted if a lower mix design maximum will apply. An L-box blocking ratio shall be submitted if a higher mix design minimum will apply. The Contractor shall also indicate applicable construction items for the mix design.

Trial mixture information will be required by the Engineer. A trial mixture is a batch of concrete tested by the Contractor to verify the Contractor's mix design will meet specification requirements. Trial mixture information shall include test results as specified in the "Portland Cement Concrete Level III Technician" course manual. Test results shall also include slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index. For the trial mixture, the slump flow shall be near the midpoint of the proposed slump flow target range.

Trial Batch. A minimum 2 cu yd (1.5 cu m) trial batch shall be produced, and the self-consolidating concrete admixture dosage proposed by the Contractor shall be used. The slump flow shall be within 1.0 in. (25 mm) of the maximum slump flow range specified by the Contractor, and the air content shall be within the top half of the allowable specification range.

The trial batch shall be scheduled a minimum of 21 calendar days prior to anticipated use and shall be performed in the presence of the Engineer.

The Contractor shall provide the labor, equipment, and materials to test the concrete. The mixture will be evaluated by the Engineer for strength, air content, slump flow, visual stability index, J-ring value, L-box blocking ratio, column segregation index, and hardened visual stability index.

Upon review of the test data from the trial batch, the Engineer will verify or deny the use of the mix design and notify the Contractor. Verification by the Engineer will include the Contractor's target slump flow range. If applicable, the Engineer will verify the Contractor's maximum J-ring value and minimum L-box blocking ratio.

A new trial batch will be required whenever there is a change in the source of any component material, proportions beyond normal field adjustments, dosage of the self-consolidating concrete admixture, batch sequence, mixing speed, mixing time, or as determined by the Engineer. The testing criteria for the new trial batch will be determined by the Engineer.

When necessary, the trial batches shall be disposed of according to Article 202.03 of the Standard Specifications.

Mixing Portland Cement Concrete. In addition to Article 1020.11 of the Standard Specifications, the mixing time for central-mixed concrete shall not be reduced as a result of a mixer performance test. Truck-mixed or shrink-mixed concrete shall be mixed in a truck mixer for a minimum of 100 revolutions.

Wash water, if used, shall be completely discharged from the drum or container before the succeeding batch is introduced.

The batch sequence, mixing speed, and mixing time shall be appropriate to prevent cement balls and mix foaming for central-mixed, truck-mixed, and shrink-mixed concrete.

Falsework and Forms. In addition to Articles 503.05 and 503.06 of the Standard Specifications, the Contractor shall ensure the design of the falsework and forms is adequate for the additional form pressure caused by the fluid concrete. Forms shall be tight to prevent leakage of fluid concrete.

When the form height for placing the self-consolidating concrete is greater than 10.0 ft (3.0 m), direct monitoring of form pressure shall be performed according to Illinois Test Procedure SCC-10. The monitoring requirement is a minimum, and the Contractor shall remain responsible for adequate design of the falsework and forms. A minimum of one sensor will be required below each point of concrete placement to measure the maximum pressure. The first sensor below the point of concrete placement shall be approximately 12 in. (300 mm) above the base of the formwork. Additional sensors shall be installed above the bottom sensor when the form height is greater than 10.0 ft (3.0 m) above the bottom sensor. The additional sensors shall be installed at a maximum vertical spacing of 10.0 ft (3.0 m). The Contractor shall record the formwork pressure during concrete placement. This information shall be used by the Contractor to prevent the placement rate from exceeding the maximum formwork pressure allowed, to monitor the thixotropic change in the concrete during the pour, and to make appropriate adjustments to the mix design. This information shall be provided to the Engineer during the pour.

Placing and Consolidating. Concrete placement and consolidation shall be according to Article 503.07 of the Standard Specifications, except as follows:

Revise the third paragraph of Article 503.07 of the Standard Specifications to read:

"Open troughs and chutes shall extend as nearly as practicable to the point of deposit. The drop distance of concrete shall not exceed 5 ft (1.5 m). If necessary, a tremie shall be used to meet this requirement. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer. For drilled shafts, free fall placement will not be permitted."

Delete the seventh, eighth, ninth, and tenth paragraphs of Article 503.07 of the Standard Specifications.

Add to the end of the eleventh paragraph of Article 503.07 of the Standard Specifications the following:

"Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer."

Quality Control by Contractor at Plant. The specified test frequencies for aggregate gradation, aggregate moisture, air content, unit weight/yield, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed as needed to control production. The column segregation index test and hardened visual stability index test will not be required to be performed at the plant.

Quality Control by Contractor at Jobsite. The specified test frequencies for air content, strength, and temperature shall be performed as indicated in the contract.

Slump flow, visual stability index, and J-ring or L-box tests shall be performed on the first two truck deliveries of the day, and every 50 cu yd (40 cu m) thereafter. The Contractor shall select either the J-ring or L-box test for jobsite testing.

The column segregation index test will not be required to be performed at the jobsite. The hardened visual stability index test shall be performed on the first truck delivery of the day, and every 300 cu yd (230 cu m) thereafter. Slump flow, visual stability index, J-ring value or L-box blocking ratio, air content, and concrete temperature shall be recorded for each hardened visual stability index test.

The Contractor shall retain all hardened visual stability index cut cylinder specimens until the Engineer notifies the Contractor that the specimens may be discarded.

If mix foaming or other potential detrimental material is observed during placement or at the completion of the pour, the material shall be removed while the concrete is still plastic.

Quality Assurance by Engineer at Plant. For air content and aggregate gradation, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, and J-ring or L-box tests, quality assurance independent sample testing and split sample testing will be performed as determined by the Engineer.

Quality Assurance by Engineer at Jobsite. For air content and strength, quality assurance independent sample testing and split sample testing will be performed as indicated in the contract.

For slump flow, visual stability index, J-ring or L-box, and hardened visual stability index tests, quality assurance independent sample testing will be performed as determined by the Engineer.

For slump flow and visual stability index quality assurance split sample testing, the Engineer will perform tests at the beginning of the project on the first three tests performed by the Contractor. Thereafter, a minimum of ten percent of total tests required of the Contractor will be performed per plant, which will include a minimum of one test per mix design. The acceptable limit of precision will be 1.5 in. (40 mm) for slump flow and a limit of precision will not apply to the visual stability index.

For the J-ring or the L-box quality assurance split sample testing, a minimum of 80 percent of the total tests required of the Contractor will be witnessed by the Engineer per plant, which will include a minimum of one witnessed test per mix design. The Engineer reserves the right to conduct quality assurance split sample testing. The acceptable limit of precision will be 1.5 in. (40 mm) for the J-ring value and ten percent for the L-box blocking ratio.

For each hardened visual stability index test performed by the Contractor, the cut cylinders shall be presented to the Engineer for determination of the rating. The Engineer reserves the right to conduct quality assurance split sample testing. A limit of precision will not apply to the hardened visual stability index.

80152

SELF-CONSOLIDATING CONCRETE FOR PRECAST PRODUCTS (BDE)

Effective: July 1, 2004
Revised: January 1, 2007

Definition. Self-consolidating concrete is a flowable mixture that does not require mechanical vibration for consolidation.

Usage. Self-consolidating concrete may be used for precast concrete products.

Materials. Materials shall be according to Section 1021 of the Standard Specifications.

Mix Design Criteria. The mix design criteria shall be as follows:

(a) The minimum cement factor shall be according to Article 1020.04 of the Standard Specifications. If the maximum cement factor is not specified, it shall not exceed 7.05 cwt/cu yd (418 kg/cu m).

(b) The maximum allowable water/cement ratio shall be according to Article 1020.04 of the Standard Specifications or 0.44, whichever is lower.

(c) The slump requirements of Article 1020.04 of the Standard Specifications shall not apply.

(d) The coarse aggregate gradations shall be CA 13, CA 14, CA 16, or a blend of these gradations. CA 11 may be used when the Contractor provides satisfactory evidence to the Engineer that the mix will not segregate. The fine aggregate proportion shall be a maximum 50 percent by weight (mass) of the total aggregate used.

(e) The slump flow range shall be ± 2 in. (± 50 mm) of the Contractor target value, and within the overall Department range of 20 in. (510 mm) minimum to 28 in. (710 mm) maximum.

(f) The visual stability index shall be a maximum of 1.

(g) The J-ring value shall be a maximum of 4 in. (100 mm). The Contractor may specify a lower maximum in the mix design.

(h) The L-box blocking ratio shall be a minimum of 60 percent. The Contractor may specify a higher minimum in the mix design.

(i) The column segregation index shall be a maximum 15 percent.

(j) The hardened visual stability index shall be a maximum of 1.

Placing and Consolidating. The maximum distance of horizontal flow from the point of deposit shall be 25 ft (7.6 m), unless approved otherwise by the Engineer.

Concrete shall be rodded with a piece of lumber, conduit, or vibrator if the material has lost its fluidity prior to placement of additional concrete. The vibrator shall be the pencil head type with a maximum diameter or width of 1 in. (25 mm). Any other method for restoring the fluidity of the concrete shall be approved by the Engineer.

Mix Design Approval. The Contractor shall obtain mix design approval according to the Department's Policy Memorandum "Quality Control/Quality Assurance Program for Precast Concrete Products".

80132

STORM SEWERS (BDE)

Effective: April 1, 2009
Revised: April 1, 2010

Add the following to Article 550.02 of the Standard Specifications:

"(p) Polyvinyl Chloride (PVC) Profile Wall Pipe-304 ..... 1040.03
(q) Polyethylene (PE) Pipe with a Smooth Interior 1040.04
~~(r) Corrugated Polyethylene (PE) Pipe with a Smooth Interior ..... 1040.04~~
(s) Polyethylene (PE) Profile Wall Pipe ..... 1040.04"

Add the following to the list of flexible pipes under Class B storm sewers in the first table of Article 550.03 of the Standard Specifications:

"Polyvinyl Chloride (PVC) Profile Wall Pipe-304
Polyethylene (PE) Pipe with a Smooth Interior
Corrugated Polyethylene (PE) Pipe with a Smooth Interior
Polyethylene (PE) Profile Wall Pipe"

Revise the 2nd - 7th tables of Article 550.03 of the Standard Specifications to read:

"STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 1 Fill Height: 3' and less with 1' minimum cover										Type 2 Fill Height: Greater than 3', not exceeding 10'									
in.	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
10	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
12	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
15	IV	NA	NA	X	X	X	X	X	X	NA	III	2	X	X	X	X	X	X	X	NA
18	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
24	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
30	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
33	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
36	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
42	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
48	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
54	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
60	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
66	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
72	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
78	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
84	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
90	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
96	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
102	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
108	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

RCCP Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP Concrete Sewer, Storm Drain, and Culvert Pipe
ESCP Extra Strength Clay Pipe
PVC Polyvinyl Chloride (PVC) Pipe
CPVC Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior

PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
PE	Polyethylene (PE) Pipe with a Smooth Interior
CPE	Corrugated Polyethylene (PE) Pipe with a Smooth Interior
PEPW	Polyethylene (PE) Profile Wall Pipe
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
*	May also use standard strength Clay Sewer Pipe
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 3 Fill Height: Greater than 10', not exceeding 15'									Type 4 Fill Height: Greater than 15', not exceeding 20'				
in.	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
10	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
12	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
15	IV	NA	NA	X	X	X	X	X	NA	V	X	X	X	X
18	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
21	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
24	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
27	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
30	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
33	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
36	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
42	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
48	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
54	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
60	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
66	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
72	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
78	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
84	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
90	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
96	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
102	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
108	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

RCCP	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP	Concrete Sewer, Storm Drain, and Culvert Pipe
ESCP	Extra Strength Clay Pipe
PVC	Polyvinyl Chloride (PVC) Pipe
CPVC	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
PE	Polyethylene (PE) Pipe with a Smooth Interior
PEPW	Polyethylene (PE) Profile Wall Pipe
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 5 Fill Height: Greater than 20', not exceeding 25'					Type 6 Fill Height: Greater than 25', not exceeding 30'					Type 7 Fill Height: Greater than 30', not exceeding 35'	
in.	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
10	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
12	V-3160D	X	X	X	X	V-3790D	X	X	X	X	V-4000D	X
15	V-3080D	X	X	X	X	V-3390D	X	NA	NA	NA	V-3575D	X
18	V	X	X	X	X	V-3115D	X	NA	NA	NA	V-3300D	X
21	V	X	X	X	X	V	X	NA	NA	NA	V-3110D	X
24	V	X	X	X	X	V	X	NA	NA	NA	V	X
27	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
30	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
33	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
36	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
42	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
48	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
54	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
60	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
66	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
72	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
78	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
84	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
90	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
96	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
102	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
108	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

RCCP	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
PVC	Polyvinyl Chloride (PVC) Pipe
CPVC	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.
Note	RCCP Class V - 3160D, etc. shall be furnished according to AASHTO M 170 Section 6. These loads are D loads to produce a 0.01 in. crack.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 1 Fill Height: 1 m and less with 0.3 m minimum cover										Type 2 Fill Height: Greater than 1 m, not exceeding 3 m									
mm	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	CPE	PEPW
250	NA	3	X	X	NA	NA	NA	X	NA	NA	NA	1	*X	X	**	NA	NA	X	NA	NA
300	IV	NA	NA	X	X	X	X	X	X	NA	III	1	*X	X	X	X	X	X	X	NA
375	IV	NA	NA	X	X	X	X	X	X	NA	III	2	X	X	X	X	X	X	X	NA
450	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	NA	X	III	2	X	X	X	X	X	NA	NA	X
600	IV	NA	NA	X	X	X	X	X	X	X	III	2	X	X	X	X	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
750	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
825	III	NA	X	X	NA	X	X	X	X	X	III	NA	X	X	NA	X	X	X	X	X
900	III	NA	X	X	X	X	X	X	X	X	III	NA	X	X	X	X	X	X	X	X
1050	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1200	II	NA	NA	NA	NA	X	X	X	X	X	III	NA	NA	NA	NA	X	X	X	X	X
1350	II	NA	NA	NA	NA	NA	NA	NA	NA	NA	III	NA	NA	NA	NA	NA	NA	NA	NA	NA
1500	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1650	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1800	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
1950	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2100	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2250	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2400	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2550	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA
2700	I	NA	NA	NA	NA	NA	NA	NA	NA	NA	II	NA	NA	NA	NA	NA	NA	NA	NA	NA

RCCP	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP	Concrete Sewer, Storm Drain, and Culvert Pipe
ESCP	Extra Strength Clay Pipe
PVC	Polyvinyl Chloride (PVC) Pipe
CPVC	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
PE	Polyethylene (PE) Pipe with a Smooth Interior
CPE	Corrugated Polyethylene (PE) Pipe with a Smooth Interior
PEPW	Polyethylene (PE) Profile Wall Pipe
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
*	May also use standard strength Clay Sewer Pipe
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 3 Fill Height: Greater than 3 m, not exceeding 4.5 m									Type 4 Fill Height: Greater than 4.5 m, not exceeding 6 m				
mm	RCCP Class	CSP Class	ESCP	PVC	CPVC	PVCPW -794	PVCPW -304	PE	PEPW	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304
250	NA	3	X	X	**	NA	NA	X	NA	NA	X	**	NA	NA
300	IV	NA	X	X	X	X	X	X	NA	V	X	X	X	X
375	IV	NA	NA	X	X	X	X	X	NA	V	X	X	X	X
450	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
525	IV	NA	NA	X	X	X	X	NA	X	V	X	X	X	X
600	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
675	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
750	IV	NA	NA	X	X	X	X	X	X	V	X	X	X	X
825	IV	NA	NA	X	NA	X	X	X	X	IV	X	NA	X	X
900	IV	NA	NA	X	X	X	X	X	X	IV	X	X	X	X
1050	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1200	IV	NA	NA	NA	NA	X	X	X	X	IV	NA	NA	X	X
1350	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1500	IV	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1650	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1800	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
1950	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2100	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2250	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2400	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2550	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA
2700	III	NA	NA	NA	NA	NA	NA	NA	NA	IV	NA	NA	NA	NA

RCCP	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
CSP	Concrete Sewer, Storm Drain, and Culvert Pipe
ESCP	Extra Strength Clay Pipe
PVC	Polyvinyl Chloride (PVC) Pipe
CPVC	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
PE	Polyethylene (PE) Pipe with a Smooth Interior
PEPW	Polyethylene (PE) Profile Wall Pipe
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.

STORM SEWERS (metric)
KIND OF MATERIAL PERMITTED AND STRENGTH REQUIRED
FOR A GIVEN PIPE DIAMETER AND FILL HEIGHT OVER THE TOP OF THE PIPE

Nom. Dia.	Type 5 Fill Height: Greater than 6 m, not exceeding 7.5 m					Type 6 Fill Height: Greater than 7.5 m, not exceeding 9 m					Type 7 Fill Height: Greater than 9 m, not exceeding 10.5 m	
mm	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC	CPVC	PVCPW -794	PVCPW -304	RCCP Class	PVC
250	NA	X	**	NA	NA	NA	X	**	NA	NA	NA	X
300	V-150D	X	X	X	X	V-180D	X	X	X	X	V-190D	X
375	V-145D	X	X	X	X	V-160D	X	NA	NA	NA	V-170D	X
450	V	X	X	X	X	V-150D	X	NA	NA	NA	V-160D	X
525	V	X	X	X	X	V	X	NA	NA	NA	V-150D	X
600	V	X	X	X	X	V	X	NA	NA	NA	V	X
675	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
750	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
825	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
900	V	X	NA	NA	NA	V	X	NA	NA	NA	V	X
1050	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1200	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1350	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1500	V	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1650	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1800	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
1950	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2100	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2250	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2400	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2550	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA
2700	IV	NA	NA	NA	NA	V	NA	NA	NA	NA	V	NA

RCCP	Reinforced Concrete Culvert, Storm Drain, and Sewer Pipe
PVC	Polyvinyl Chloride (PVC) Pipe
CPVC	Corrugated Polyvinyl Chloride (PVC) Pipe with a Smooth Interior
PVCPW-794	Polyvinyl Chloride (PVC) Profile Wall Pipe-794
PVCPW-304	Polyvinyl Chloride (PVC) Profile Wall Pipe-304
X	This material may be used for the given pipe diameter and fill height.
NA	This material is Not Acceptable for the given pipe diameter and fill height.
**	May be used if Bureau of Materials and Physical Research approves and with manufacturer's certification.
Note	RCCP Class V - 150D, etc. shall be furnished according to AASHTO M 170M Section 6. These loads are D loads to produce a 0.3 mm crack."

Revise the last paragraph of Article 550.06 of the Standard Specifications to read:

"PVC and PE pipes shall be joined according to the manufacturer's specifications."

Revise the second paragraph of Article 550.07 of the Standard Specifications to read:

"When using flexible pipe, as listed in the first table of Article 550.03, the aggregate shall be continued to a height of at least 1 ft (300 mm) above the top of the pipe and compacted to a minimum of 95 percent of standard lab density by mechanical means."

Revise Article 550.08 of the Standard Specifications to read:

"**550.08 Deflection Testing for Storm Sewers.** All PVC and PE storm sewers shall be tested for deflection not less than 30 days after the pipe is installed and the backfill compacted. The testing shall be performed in the presence of the Engineer.

For PVC and PE storm sewers with diameters 24 in. (600 mm) or smaller, a mandrel drag shall be used for deflection testing. For PVC and PE storm sewers with diameters over 24 in. (600 mm), deflection measurements other than by a mandrel drag shall be used.

Where the mandrel is used, the mandrel shall be furnished by the Contractor and pulled by hand through the pipeline with a suitable rope or cable connected to each end. Winching or other means of forcing the deflection gauge through the pipeline will not be allowed.

The mandrel shall be of a shape similar to that of a true circle enabling the gauge to pass through a satisfactory pipeline with little or no resistance. The mandrel shall be of a design to prevent it from tipping from side to side and to prevent debris build-up from occurring between the channels of the adjacent fins or legs during operation. Each end of the core of the mandrel shall have fasteners to which the pulling cables can be attached. The mandrel shall have nine, various sized fins or legs of appropriate dimension for various diameter pipes. Each fin or leg shall have a permanent marking that states its designated pipe size and percent of deflection allowable.

The outside diameter of the mandrel shall be 95 percent of the base inside diameter. For all PVC pipe and PE Profile Wall pipe, the base inside diameter shall be defined using ASTM D 3034 methodology. For all other PE pipe, the base inside diameter shall be defined as the average inside diameter based on the minimum and maximum tolerances specified in the corresponding ASTM or AASHTO material specifications.

If the pipe is found to have a deflection greater than that specified, that pipe section shall be removed, replaced, and retested."

Revise Article 1040.04(b) of the Standard Specifications to read:

"(b) Corrugated PE Pipe with a Smooth Interior. The pipe shall be according to AASHTO M 294 (nominal size – 12 to 48 in. (300 to 1200 mm)). The pipe shall be Type S or D."

Revised the first and second paragraphs of Article 1040.04(c) to read:

"(c) PE Profile Wall Pipe. The pipe shall be according to ASTM F 894 and shall have a minimum ring stiffness constant of 160. The pipe shall also have a minimum cell classification of PE 334433C as defined in ASTM D 3350.

(1) Pipe Culverts and Storm Sewers. When used for pipe culverts and storm sewers, the section properties shall be according to AASHTO's Section 17. The manufacturer shall submit written certification that the material meets AASHTO's Section 17 properties."

80234

SUBCONTRACTOR MOBILIZATION PAYMENTS (BDE)

Effective: April 2, 2005

To account for the preparatory work and operations necessary for the movement of subcontractor personnel, equipment, supplies, and incidentals to the project site and for all other work or operations that must be performed or costs incurred when beginning work approved for subcontracting in accordance with Article 108.01 of the Standard Specifications, the Contractor shall make a mobilization payment to each subcontractor.

This mobilization payment shall be made at least 14 days prior to the subcontractor starting work. The amount paid shall be equal to 3 percent of the amount of the subcontract reported on form BC 260A submitted for the approval of the subcontractor's work.

This provision shall be incorporated directly or by reference into each subcontract approved by the Department.

80143

TEMPORARY EROSION CONTROL (BDE)

Effective: November 1, 2002
Revised: January 1, 2010

Add the following to Article 280.02 of the Standard Specifications to read:

"(k) Filter Fabric ..... 1080.03"

Revise the third paragraph of Article 280.03 of the Standard Specifications to read:

"Erosion control systems shall be installed prior to beginning any activities which will potentially create erodible conditions. Erosion control systems for areas outside the limits of construction such as storage sites, plant sites, waste sites, haul roads, and Contractor furnished borrow sites shall be installed prior to beginning soil disturbing activities at each area. These offsite systems shall be designed by the Contractor and be subject to the approval of the Engineer."

Add the following paragraph after the third paragraph of Article 280.03 of the Standard Specifications:

"The temporary erosion and sediment control systems shown on the plans represent the minimum systems anticipated for the project. Conditions created by the Contractor's operations, or for the Contractor's convenience, which are not covered by the plans, shall be protected as directed by the Engineer at no additional cost to the Department. Revisions or modifications of the erosion and sediment control systems shall have the Engineer's written approval."

Revise Article 280.04(a) of the Standard Specifications to read:

"(a) Temporary Ditch Checks. This system consists of the construction of temporary ditch checks to prevent siltation, erosion, or scour of ditches and drainage ways. Temporary ditch checks shall be constructed with rolled excelsior, products from the Department's approved list, or with aggregate placed on filter fabric when specified. Filter fabric shall be installed according to the requirements of Section 282. Riprap shall be placed according to Article 281.04. Manufactured ditch checks shall be installed according to the manufacturer's specifications. Spacing of ditch checks shall be such that the low point in the center of one ditch check is at the same elevation as the base of the ditch check immediately upstream. Temporary ditch checks shall be sufficiently long enough that the top of the device in the middle of the ditch is lower than the bottom of the terminating ends of the ditch side slopes."

Revise the last sentence of the first paragraph of Article 280.04(g) of the Standard Specifications to read:

"The temporary mulch cover shall be according to either Article 251.03 or 251.04 except for any reference to seeding."

Revise Article 280.07(b) of the Standard Specifications to read:

"(b) Temporary Ditch Checks. This work will be measured for payment along the long axis of the device in place in feet (meters) except for aggregate ditch checks which will be measured for payment in tons (metric tons). Payment will not be made for aggregate in excess of 108 percent of the amount specified by the Engineer."

Revise Article 280.07(f) of the Standard Specifications to read:

"(f) Temporary Mulch. This work will be measured for payment according to Article 251.05(b)."

Add the following paragraph after the ninth paragraph of Article 280.07 of the Standard Specifications:

"Temporary or permanent erosion control systems required for areas outside the limits of construction will not be measured for payment."

Revise Article 280.08(b) of the Standard Specifications to read:

"(b) Temporary Ditch Checks. This work will be paid for at the contract unit price per foot (meter) for TEMPORARY DITCH CHECKS except for aggregate ditch checks which will be paid for at the contract unit price per ton (metric ton) for AGGREGATE DITCH CHECKS."

Revise Article 280.08(f) of the Standard Specifications to read:

"(f) Temporary Mulch. Temporary Mulch will be paid for according to Article 251.06."

Delete the tenth (last) paragraph of Article 280.08 of the Standard Specifications.

Revise the second sentence of the first paragraph of Article 1081.015(e) of the Standard Specifications to read:

"The upstream facing of the aggregate ditch check shall be constructed of gradation CA 3. The remainder of the ditch check shall be constructed of gradation RR 3."

80087

THERMOPLASTIC PAVEMENT MARKINGS (BDE)

Effective: January 1, 2007

Revise Article 1095.01(a)(2) of the Standard Specifications to read:

"(2) Pigment. The pigment used for the white thermoplastic compound shall be a high-grade pure (minimum 93 percent) titanium dioxide (TiO_2). The white pigment content shall be a minimum of ten percent by weight and shall be uniformly distributed throughout the thermoplastic compound.

The pigments used for the yellow thermoplastic compound shall not contain any hazardous materials listed in the Environmental Protection Agency Code of Federal Regulations (CFR) 40, Section 261.24, Table 1. The combined total of RCRA listed heavy metals shall not exceed 100 ppm when tested by X-ray fluorescence spectroscopy. The pigments shall also be heat resistant, UV stable and color-fast yellows, golds, and oranges, which shall produce a compound which shall match Federal Standard 595 Color No. 33538. The pigment shall be uniformly distributed throughout the thermoplastic compound."

Revise Article 1095.01(b)(1)e. of the Standard Specifications to read:

"e. Daylight Reflectance and Color. The thermoplastic compound after heating for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) and cooled at 77 °F (25 °C) shall meet the following requirements for daylight reflectance and color, when tested, using a color spectrophotometer with 45 degree circumferential/zero degree geometry, illuminant C, and two degree observer angle. The color instrument shall measure the visible spectrum from 380 to 720 nm with a wavelength measurement interval and spectral bandpass of 10 nm.

White: Daylight Reflectance .....75 percent min.
*Yellow: Daylight Reflectance .....45 percent min.

*Shall meet the coordinates of the following color tolerance chart.

x	0.490	0.475	0.485	0.530
y	0.470	0.438	0.425	0.456"

Revise Article 1095.01(b)(1)k. of the Standard Specifications to read:

"k. Accelerated Weathering. After heating the thermoplastic for four hours ± five minutes at 425 ± 3 °F (218.3 ± 2 °C) the thermoplastic shall be applied to a steel wool abraded aluminum alloy panel (Federal Test Std. No. 141, Method 2013) at a film thickness of 30 mils (0.70 mm) and allowed to cool for 24 hours at room temperature. The coated panel shall be subjected to accelerated weathering

using the light and water exposure apparatus (fluorescent UV - condensation type) for 75 hours according to ASTM G 53 (equipped with UVB-313 lamps).

The cycle shall consist of four hours UV exposure at 122 °F (50 °C) followed by four hours of condensation at 104 °F (40 °C). UVB 313 bulbs shall be used. At the end of the exposure period, the panel shall not exceed 10 Hunter Lab Delta E units from the original material."

80176

TRAINING SPECIAL PROVISIONS (BDE) This Training Special Provision supersedes Section 7b of the Special Provision entitled "Specific Equal Employment Opportunity Responsibilities," and is in implementation of 23 U.S.C. 140(a).

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided as follows:

The contractor shall provide on-the-job training aimed at developing full journeyman in the type of trade or job classification involved. The number of trainees to be trained under this contract will be 2. In the event the contractor subcontracts a portion of the contract work, he shall determine how many, if any, of the trainees are to be trained by the subcontractor, provided however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also insure that this Training Special Provision is made applicable to such subcontract. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training.

The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within the reasonable area of recruitment. Prior to commencing construction, the contractor shall submit to the Illinois Department of Transportation for approval the number of trainees to be trained in each selected classification and training program to be used. Furthermore, the contractor shall specify the starting time for training in each of the classifications. The contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and will be reimbursed for such trainees as provided hereinafter.

Training and upgrading of minorities and women toward journeyman status is a primary objective of this Training Special Provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g. by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent such persons are available within a reasonable area of recruitment. The contractor will be responsible for demonstrating the steps that he has taken in pursuance thereof, prior to a determination as to whether the contractor is in compliance with this Training Special Provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

No employee shall be employed as a trainee in any classification in which he has successfully completed a training course leading to journeyman status or in which he has been employed as a journeyman. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used the contractor's records should document the findings in each case.

The minimum length and type of training for each classification will be as established in the training program selected by the contractor and approved by the Illinois Department of Transportation and the Federal Highway Administration. The Illinois Department of Transportation and the Federal Highway Administration shall approve a program, if it is reasonably calculated to meet the equal employment opportunity obligations of the contractor and to qualify the average trainee for journeyman status in the classification concerned by the end of the training period. Furthermore, apprenticeship programs registered with the U.S. Department of Labor, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau and training programs approved by not necessarily sponsored by the U.S. Department of Labor, Manpower Administration, Bureau of Apprenticeship and Training shall also be considered acceptable provided it is being administered in a manner consistent with the equal employment obligations of Federal-aid highway construction contracts. Approval or acceptance of a training program shall be obtained from the State prior to commencing work on the classification covered by the program. It is the intention of these provisions that training is to be provided in the construction crafts rather then clerk-typists or secretarial-type positions. Training is permissible in lower level management positions such as office engineers, estimators, timekeepers, etc., where the training is oriented toward construction applications. Training in the laborer classification may be permitted provided that significant and meaningful training is provided and approved by the Illinois Department of Transportation and the Federal Highway Administration. Some offsite training is permissible as long as the training is an integral part of an approved training program and does not comprise a significant part of the overall training.

Except as otherwise noted below, the contractor will be reimbursed 80 cents per hour of training given an employee on this contract in accordance with an approved training program. As approved by the Engineer, reimbursement will be made for training of persons in excess of the number specified herein. This reimbursement will be made even though the contractor receives additional training program funds from other sources, provided such other source does not specifically prohibit the contractor from receiving other reimbursement. Reimbursement for offsite training indicated above may only be made to the contractor where he does one or more of the following and the trainees are concurrently employed on a Federal-aid project; contributes to the cost of the training, provides the instruction to the trainee or pays the trainee's wages during the offsite training period.

No payment shall be made to the contractor if either the failure to provide the required training, or the failure to hire the trainee as a journeyman, is caused by the contractor and evidences a lack of good faith on the part of the contractor in meeting the requirement of this Training Special Provision. It is normally expected that a trainee will begin his training on the project as soon as feasible after start of work utilizing the skill involved and remain on the project as long as training opportunities exist in his work classification or until he has completed his training program.

It is not required that all trainees be on board for the entire length of the contract. A contractor will have fulfilled his responsibilities under this Training Special Provision if he has provided acceptable training to the number of trainees specified. The number trained shall be determined on the basis of the total number enrolled on the contract for a significant period.

Trainees will be paid at least 60 percent of the appropriate minimum journeyman's rate specified in the contract for the first half of the training period, 75 percent for the third quarter of the training period, and 90 percent for the last quarter of the training period, unless apprentices or trainees in an approved existing program are enrolled as trainees on this project. In that case, the appropriate rates approved by the Departments of Labor or Transportation in connection with the existing program shall apply to all trainees being trained for the same classification who are covered by this Training Special Provision.

The contractor shall furnish the trainee a copy of the program he will follow in providing the training. The contractor shall provide each trainee with a certification showing the type and length of training satisfactorily complete.

The contractor will provide for the maintenance of records and furnish periodic reports documenting his performance under this Training Special Provision.

METHOD OF MEASUREMENT The unit of measurement is in hours.

BASIS OF PAYMENT This work will be paid for at the contract unit price of 80 cents per hour for TRAINEES. The estimated total number of hours, unit price and total price have been included in the schedule of prices.

20338

WORKING DAYS (BDE)

Effective: January 1, 2002

The Contractor shall complete the work within 160 working days.

80071

REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS

ATTACHMENTS

A. Employment Preference for Appalachian Contracts (included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all word performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4 and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6 and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. Selection of Labor: During the performance of this contract, the contractor shall not:

a. Discriminate against labor from any other State, possession, or territory of the United States (except for employment preference for Appalachian contracts, when applicable, as specified in Attachment A), or

b. Employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

1. Equal Employment Opportunity: Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60 (and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

b. The contractor will accept as his operating policy the following statement: "It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job-training."

2. EEO Officer: The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for an must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees,

applicants for employment and potential employees.
e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employees referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish which such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.
b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)
c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.
b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.
c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.
d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.
b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.
c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.
b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.
c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.
d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or quailifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.
b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees.
Contractors shall obtain lists of DBE construction firms from SHA

personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of $10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the

contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the question, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advised the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any cost reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which cases such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration

withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV. 2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainee's and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages: In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of $10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall; upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding $2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely

all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for submitting payroll copies of all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less that the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U/S. C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all federal-aid contracts on the national highway system, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than $1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on /Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractors' own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in

surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S. C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than $10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of $100,000 or more).

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

1. Instructions for Certification - Primary Covered Transactions:

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.
b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.
c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.
d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
e. The terms "covered transaction," "debarred," "suspended," "ineligible,""lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal

is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification in all lower tier covered transactions

and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded from Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

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Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and

d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of $25,000 or more - 49 CFR 29)

a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.

e. The prospective lower tie participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealing.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

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Certification Regarding Debarment, Suspension, Ineligibility And Voluntary Exclusion-Lower Tier Covered Transactions:

1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

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XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed $100,000 - 49 CFR 20)

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed $100,000 and that all such recipients shall certify and disclose accordingly.

MINIMUM WAGES FOR FEDERAL AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS

This project is funded, in part, with Federal-aid funds and, as such, is subject to the provisions of the Davis-Bacon Act of March 3, 1931, as amended (46 Sta. 1494, as amended, 40 U.S.C. 276a) and of other Federal statutes referred to in a 29 CFR Part 1, Appendix A, as well as such additional statutes as may from time to time be enacted containing provisions for the payment of wages determined to be prevailing by the Secretary of Labor in accordance with the Davis-Bacon Act and pursuant to the provisions of 29 CFR Part 1. The prevailing rates and fringe benefits shown in the General Wage Determination Decisions issued by the U.S. Department of Labor shall, in accordance with the provisions of the foregoing statutes, constitute the minimum wages payable on Federal and federally assisted construction projects to laborers and mechanics of the specified classes engaged on contract work of the character and in the localities described therein.

General Wage Determination Decisions, modifications and supersedes decisions thereto are to be used in accordance with the provisions of 29 CFR Parts 1 and 5. Accordingly, the applicable decision, together with any modifications issued, must be made a part of every contract for performance of the described work within the geographic area indicated as required by an applicable DBRA Federal prevailing wage law and 29 CFR Part 5. The wage rates and fringe benefits contained in the General Wage Determination Decision shall be the minimum paid by contractors and subcontractors to laborers and mechanics.

NOTICE

The most current **General Wage Determination Decisions** (wage rates) are available on the IDOT web site. They are located on the Letting and Bidding page at http://www.dot.state.il.us/desenv/delett.html.

In addition, ten (10) days prior to the letting, the applicable Federal wage rates will be e-mailed to subscribers. It is recommended that all contractors subscribe to the Federal Wage Rates List or the Contractor's Packet through IDOT's subscription service.

PLEASE NOTE: if you have already subscribed to the Contractor's Packet you will automatically receive the Federal Wage Rates.

The instructions for subscribing are at http://www.dot.state.il.us/desenv/subsc.html.

If you have any questions concerning the wage rates, please contact IDOT's Chief Contract Official at 217-782-7806.